The Stock Screening Process Featuring the Shareholder Yield Screen

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Agenda

- Introductory Comments
- The Shareholder Yield Screen
- Volatility & Drawdown Control
- "Implementation Details"
- Session Takeaways
- Q&A
- Extra "Stuff" (i.e., screens…)
- References

Introductory Comments

- Which stock screener is used??
  - Stock Investor Pro (SIPro), Portfolio123 (P123) are ones I use
  - Can build this screen in Stock Investor Pro (I have!)
  - Many free screeners out there (be aware of data issues)

- Do you need to have a back-testing tool?
  - No, unless you want to do analysis similar to what you'll see here
  - If you want to do back-testing I use P123. (There are some free back-testing tools out there – be aware of data issues)
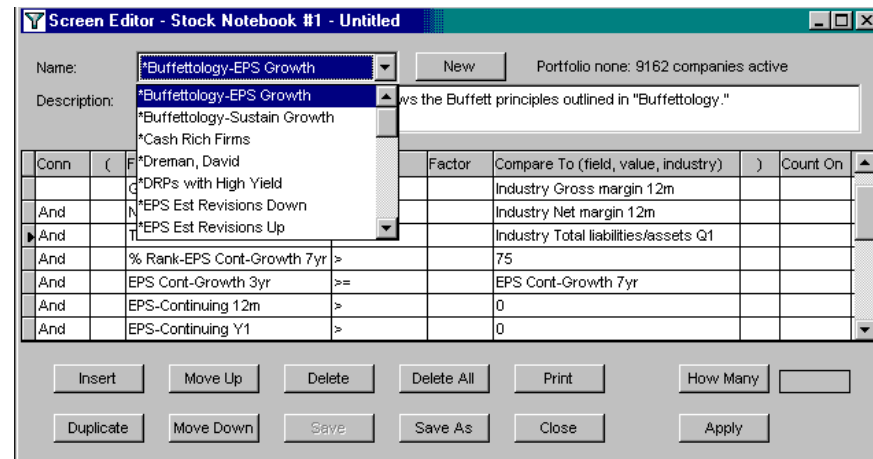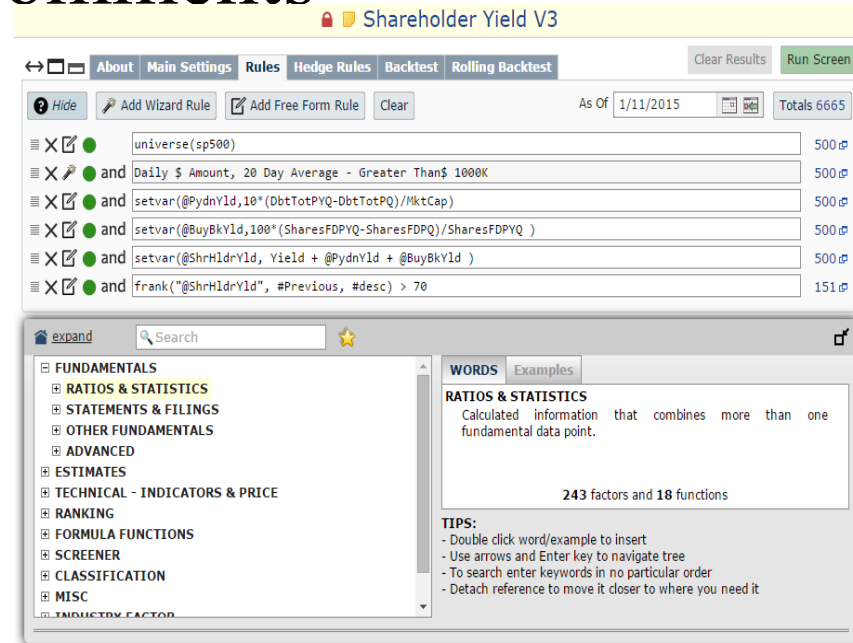
Introductory Comments

- What other tools do I need??
  - An Excel-like spreadsheet is handy – especially if you want to implement the volatility control items we'll be talking about
  - Feel free to write code if so inclined…

- How much time does this take??
  - Analysis can take considerable time (I like this part so I'm OK with spending the time)
  - Implementation should be a small amount of time. You have some control over this -- we'll talk more about this later…

- Should I do more with the screen results?
  - AAII recommends further analysis
  - If you plan to do more analysis you can double the number of stocks in the screen (e.g., 50 instead of 25) and focus on picking the top 25
  - If you do take "raw" screen results do sanity checking for acquisitions, sudden price dives or spikes, etc.
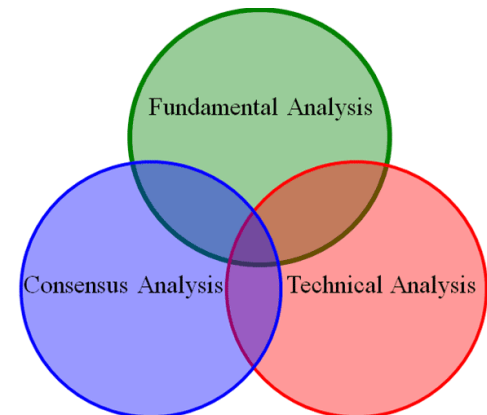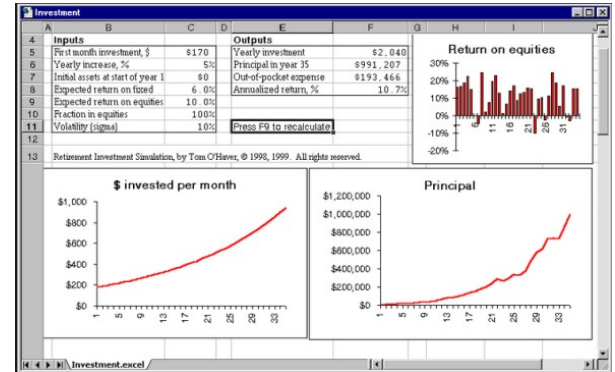
Introductory Comments

- What's the plan from here??
  - Screen: Will cover the shareholder yield screen, back-test results / performance statistics, current stocks
  - Volatility Control: Will describe methods and provide some tools to address this
  - Implementation: Methods and tools to implement the screen – and the brokerages used for buying baskets/motifs/folios

- There are additional screens in the Extra "Stuff" area
  - OSV, Tiny Titans, Sector Dogs
  - Not part of formal presentation -- feel free to email me for Q&A

The Shareholder Yield Screen

Shareholder Yield

- Based on AAII-SV event in May 2013 by Meb Faber on his book <u>Shareholder Yield</u>
  - Free e-book at Amazon for the next few days
- Key points
  - SY = DY + BBY + PDY
    - Shareholder Yield = Dividend Yield + BuyBack Yield + PayDown Yield
  - BuyBack Yield: Net share buybacks (measured over the last year)
  - PayDown Yield: Net pay down of debt (Total debt reduction over the last year)
  - All 3 terms are the real return to shareholders
  - SY has done well over time – see next slide
  - Compare SYLD ETF to **PKW, PFM** ETFs
    - For foreign stocks see the FYLD ETF
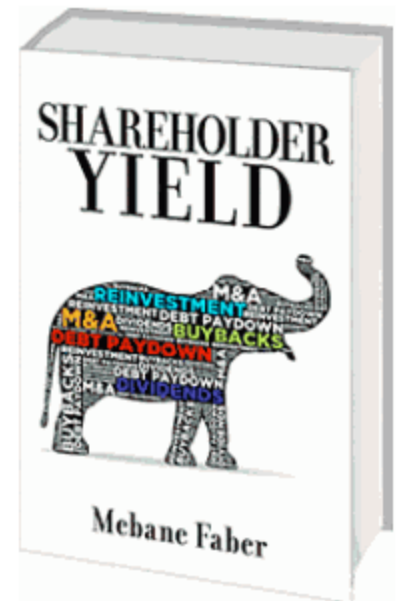
Shareholder Yield

A simple yearly rebal, mkt cap weighted, of various yield strategies below.

- Back-test takes top 25% of S&P500 stocks yearly (by each measure)

- Market cap-weights used within each strategy

– **Various Measures of Cash Flow Yields, 1982-2010.**

Shareholder Yield, BuyBack Achievers
Dividend Achievers, 5/14/13 - 1/4/16

Legend:
- SYLD
- Pkw
- Pfm
- Spy

Shareholder Yield at Portfolio123

- Terms: (some, not all)
  - Setvar = "set variable"; frank = "rank on ShrHldrYld descending order"
  - DbtTotPYQ = "Total Debt Previous Year Quarter";
  - SharesFDPYQ = "Common Shares Fully Diluted Previous Year Quarter"

Shareholder Yield (V3.1): Current Stocks

Rank data as of 01/05/16, Report: Screen Factors

No	Ticker	Name	Last	MktCap	@PydnYld	@BuyBkYld	Yield	@ShrHldrYld	DbtTotPYQ	DbtTotQ	SharesFDPYQ	SharesFDQ
1	NAVI[5D][1Y]	Navient Corp	11.34	4,108.58	6.22	11.35	5.64	23.21	133,663.00	131,109.00	423	375
2	MSI[5D][1Y]	Motorola Solutions Inc	66.39	11,721.95	-0.84	18.9	2.47	20.53	3,405.00	4,390.00	248.20	201.30
3	NOV[5D][1Y]	National Oilwell Varco Inc	33.62	12,632.21	-0.66	11.6	5.47	16.41	3,146.00	3,983.00	431	381
4	GLW[5D][1Y]	Corning Inc	17.9	21,193.60	-0.16	13.68	2.68	16.2	3,683.00	4,016.00	1,411.00	1,218.00
5	SNDK[5D][1Y]	SanDisk Corp	76.09	15,270.58	-0.06	14.5	1.58	16.02	2,049.98	2,137.74	240.68	205.79
6	JNPR[5D][1Y]	Juniper Networks Inc	27.55	10,601.24	-0.57	14.42	1.45	15.31	1,348.90	1,948.60	454.8	389.2
7	STX[5D][1Y]	Seagate Technology Plc	36.33	10,862.13	-0.3	8.61	6.94	15.24	3,809.00	4,140.00	337	308
8	AIG[5D][1Y]	American International Group Inc	60.64	75,605.65	0.73	11.3	1.85	13.88	36,223.00	30,719.00	1,442.07	1,279.07
9	XRX[5D][1Y]	Xerox Corp	10.28	10,407.50	0.08	10.32	2.72	13.13	7,660.00	7,576.00	1,165.44	1,045.13
10	PWR[5D][1Y]	Quanta Services Inc.	19.46	3,178.46	-0.84	13.92	0	13.08	84.87	350.56	219.52	188.96
11	AES[5D][1Y]	AES Corporation (The)	9.56	6,447.85	0.57	7.84	4.6	13.01	21,066.00	20,698.00	740	682
12	BBBY[5D][1Y]	Bed Bath & Beyond Inc.	49.04	8,184.38	0	12.98	0	12.98	1,500.00	1,500.00	191.5	166.63
13	LYB[5D][1Y]	LyondellBasell Industries NV	87.64	39,687.34	-0.38	9.57	3.56	12.75	6,811.00	8,318.00	512	463
14	DE[5D][1Y]	Deere & Co	76.52	24,232.89	0.04	8.51	3.14	11.69	36,958.40	36,849.40	354.8	324.6
15	MUR[5D][1Y]	Murphy Oil Corp	22.59	3,886.04	1.77	3.72	6.2	11.68	4,025.87	3,339.86	178.86	172.21
16	NOC[5D][1Y]	Northrop Grumman Corp	192.39	35,173.32	-0.17	10.18	1.66	11.67	5,929.00	6,527.00	209.20	187.90
17	HOT[5D][1Y]	Starwood Hotels & Resorts Worldwid	68.02	11,516.26	0.07	9.14	2.21	11.41	2,438.00	2,361.00	186.00	169.00
18	CTL[5D][1Y]	CenturyLink Inc	24.99	13,846.71	0.53	2.16	8.64	11.34	21,151.00	20,414.00	567.43	555.16
19	NTAP[5D][1Y]	NetApp Inc	25.4	7,416.80	0.01	8.5	2.83	11.34	1,494.40	1,489.00	323.5	296
20	M[5D][1Y]	Macy's Inc	36.96	11,619.04	-0.64	7.83	3.9	11.08	7,219.00	7,963.00	357.7	329.7
21	GME[5D][1Y]	GameStop Corp.	28.77	3,017.97	0.01	6.02	5.01	11.04	354.00	350.90	112.9	106.1
22	CBS[5D][1Y]	CBS Corp	46.12	21,860.88	-0.84	10.54	1.3	11	6,959.00	8,799.00	541	484
23	MAR[5D][1Y]	Marriott International Inc.	65.59	16,889.42	-0.46	9.51	1.52	10.58	3,528.00	4,304.00	295.4	267.3
24	VIAB[5D][1Y]	Viacom Inc	40.56	16,146.94	0.3	6.21	3.94	10.46	12,769.00	12,285.00	426.4	399.9
25	TRV[5D][1Y]	Travelers Companies Inc (The)	110.47	33,604.98	-0.12	8.23	2.21	10.32	6,348.00	6,743.00	338.9	311

Shareholder Yield (V3.1): Back-Test

Save

| ABOUT | MAIN SETTINGS | RULES | HEDGE RULES | BACKTEST | ROLLING BACKTEST | CLEAR RESULTS | RE-RUN BACKTEST |

Price	Next Open ▼			01/02/1999 - 12/30/2015
Rank Tolerance	0.0	Max Pos % (0-100)	0.0	Rebalance Frequency	1 Year
Slippage %	0.0	Carry Cost %	0.0	Risk Statistics Period	Monthly
Long Weight %	100.0			Save Log
Max No. Stocks (0 for all)	25			

Statistics

	Total Return	Annualized Return	Max Drawdown	Sharpe	Sortino	StdDev	CorrelBench	R-Squared	Beta	Alpha
Screen	775.05%	13.62%	-66.73%	0.67	0.94	20.42%	0.91	0.83	1.08	7.12%
S&P 500 Eq Weight	202.53%	6.73%	-60.83%	0.36	0.49	17.24%	-	-	-	-

Risk Statistics (MONTHLY Period)

Chart by Portfolio123.com

— Screen — S&P 500 Eq Weight ■ Turnover % ▪ Number of Positions

Shareholder Yield V3.1 vs. "SYLD ETF"

- How does this screen compare to the SYLD ETF??
  - Can't compare directly – limited history for SYLD ETF
  - Can back test a 100 stock version of this alg to get an idea of what the performance "might have been"
  - Real SYLD ETF performance will vary (of course)
  - Walk-in expectation is for lower ETF performance due to larger number of stocks held
  - Let's see…

CAMBRIA INVESTMENT MANAGEMENT

SYLD

Cambria Shareholder Yield ETF — Listed: NYSE ARCA

Strategy Overview

Free cash flow has long been emphasized by investors as a key predictor of a company's strength. Companies that pay cash dividends, one indication of strong free cash flow, have historically outperformed the broader market. Focusing strictly on dividend payments, however, misses two key indicators of strong free cash flow: net share repurchases and net debt paydown. The manager believes that a focus on all three factors – dividend payments, net share repurchases and net debt paydown, a trio collectively known as shareholder yield – produces a portfolio of companies that offer strong free cash flow characteristics.

Fund Description

The Cambria Shareholder Yield ETF is an actively managed fund that employs the manager's quantitative algorithm to select U.S. listed companies that show strong characteristics in returning free cash flow to their shareholders. Specifically, SYLD invests in 100 stocks with market caps greater than $200 million that rank among the highest in (a) paying cash dividends, (b) engaging in net share repurchases, and (c) paying down debt on their balance sheets.

Why Invest in SYLD

- **A Focus on Dividends Alone Misses the Broader Picture** - Rather than just focusing on dividend payments alone, SYLD invests in U.S. listed stocks that couple strong dividend payments with share repurchases and debt paydown. The manager believes that selecting companies that show strength in all three dimensions is a superior methodology for identifying stocks that possess strong cash flows and that have the potential to reward shareholders with higher yields.

- **Share Repurchases have Outpaced Dividends** - According to data compiled by Robert Shiller, over the past 70 years, companies have continued to pay a lower and lower percentage of their earnings in cash dividends. Due to tax treatment and regulatory changes in the 1980s, U.S. companies have shifted their payout mix to include more share buybacks, and according to research conducted by Jeremy Schwartz, seven out of the ten S&P 500 sectors in 2011 offered a higher yield resulting from share repurchases than resulting from cash dividend payments.

- **Classic Value Investment Approach** - A long-held pillar of investment success provides that investors should buy the stocks of companies that exhibit strong free cash flows and return that cash to investors in the form of dividend yield. The SYLD portfolio has the potential benefit of investing in classic value companies that are also buying back their stock and reducing their debt.

- **Diversification** - The fund offers a broad portfolio of US companies of different sizes, industries and sectors, providing investors with a diversified equity portfolio. The manager employs maximum sector percentage caps to ensure that the portfolio is not concentrated in any one sector.

- **Pioneering Product** - SYLD is the first ETF to focus on shareholder yield, and the prospectus covering SYLD also lists future shareholder yield ETFs focusing on foreign developed countries (Cambria Foreign Shareholder Yield ETF: FYLD) and emerging markets (Cambria Emerging Shareholder Yield ETF: EYLD).

- **Advantage of Active ETFs** - Investors will receive the benefits and flexibility of the ETF vehicle, including the ability to be traded using limit and stop loss orders as well as on margin, intraday pricing, transparency of holdings, lower expense ratio, and a single-share investment minimum, all underlying Cambria's actively managed, risk-managed portfolio design.

Fund Details (as of May 14, 2013)

Fund Inception:	5/14/2013
Ticker Symbol:	SYLD
Listing Exchange:	NYSE ARCA
CUSIP:	132061201
Fund Type:	Actively Managed ETF
Investment Objective:	Absolute Return
Expense Ratio:	0.59%
Indicative Value:	SYLD.IV
Net Asset Value (NAV):	SYLD.NV
Portfolio Managers:	Mebane T. Faber & Eric W. Richardson
Number of Holdings:	100
Dividend Frequency:	Annual

Cambria Investment Management, LP
2321 Rosecrans Avenue, Suite 3225
El Segundo, CA 90245
(310) 683-5500
www.cambriafunds.com

Asset Allocation

LARGE CAP >$5B	56%
MID CAP $1 - $5B	34%
SMALL CAP <$1B	10%
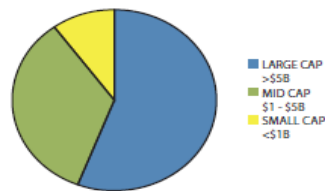
Top Sector Weights

FINANCIALS	20%
CONSUMER DISCRETIONARY	17%
INFORMATION TECHNOLOGY	15%
INDUSTRIALS	13%
CONSUMER STAPLES	13%
HEALTHCARE	10%
ENERGY	6%
TELECOMMUNICATION SERVICES	4%
MATERIALS	2%
UTILITIES	1%

Holdings and allocations are subject to risks and to change.

Shareholder Yield V3.1 vs. "SYLD ETF"

Save ☆ 🔒 📙 Shareholder Yield V3.1

↔ □ ▬ | ABOUT | MAIN SETTINGS | RULES | HEDGE RULES | BACKTEST | ROLLING BACKTEST | CLEAR RESULTS | RUN SCREEN

As Of	01/06/2016 📅 📥		
Universe	All Fundamentals - USA ▾	Benchmark	S&P 500 Eq Weight ▾
Ranking	No Ranking ▾	Method	Long ▾
Max No. Stocks (0 for all)	100		

Save ☆ 🔒 📙 Shareholder Yield V3.1

↔ □ ▬ | ABOUT | MAIN SETTINGS | RULES | HEDGE RULES | BACKTEST | ROLLING BACKTEST | CLEAR RESULTS | RUN SCREEN

ⓘ SHOW | CLEAR | **SCREEN TYPE:** Stock **METHOD:** Long | As Of 01/06/2016 📅 📥 | TOTALS 6456

Long Rules | 🪄 ADD WIZARD RULE | ✏ ADD FREE FORM RULE | - stocks that pass these rules will be the long positions

≡ ✖ 🖉 ●	universe(sp500)	500 ⊡
≡ ✖ 🪄 ● and	Daily $ Amount, 20 Day Average - Greater Than$ 1000K	500 ⊡
≡ ✖ 🖉 ● and	showvar(@PydnYld,10*(DbtTotPYQ-DbtTotQ)/MktCap)	500 ⊡
≡ ✖ 🖉 ● and	showvar(@BuyBkYld,100*(SharesFDPYQ-SharesFDQ)/SharesFDPYQ)	500 ⊡
≡ ✖ 🖉 ● and	showvar(@ShrHldrYld, Yield + @PydnYld + @BuyBkYld)	500 ⊡
≡ ✖ 🖉 ● and	frank("@ShrHldrYld", #Previous, #desc) > 80	101 ⊡

Shareholder Yield V3.1 vs. "SYLD ETF"

Save

☆ 🔒 🗋 Shareholder Yield V3.1

↔ □ ▭   ABOUT   MAIN SETTINGS   RULES   HEDGE RULES   **BACKTEST**   ROLLING BACKTEST | CLEAR RESULTS | **RE-RUN BACKTEST**

Price	Next Open ▼		◀◀ ◀ 01/02/1999 - 12/30/2015 ▶ ▶▶ 🗓 ✕
Rank Tolerance	0.0	Max Pos % (0-100)	0.0	Rebalance Frequency	1 Year ▼
Slippage %	0.0	Carry Cost %	0.0	Risk Statistics Period	Monthly ▼
Long Weight %	100.0			Save Log ☐
Max No. Stocks (0 for all)	100		

Statistics

| | Total Return | Annualized Return | Max Drawdown | Risk Statistics (MONTHLY Period) | | | | | | |
				Sharpe	Sortino	StdDev	CorrelBench	R-Squared	Beta	Alpha
Screen	545.20%	11.60%	-60.36%	0.64	0.87	17.26%	0.94	0.89	0.94	5.28%
S&P 500 Eq Weight	202.53%	6.73%	-60.83%	0.36	0.49	17.24%	-	-	-	-
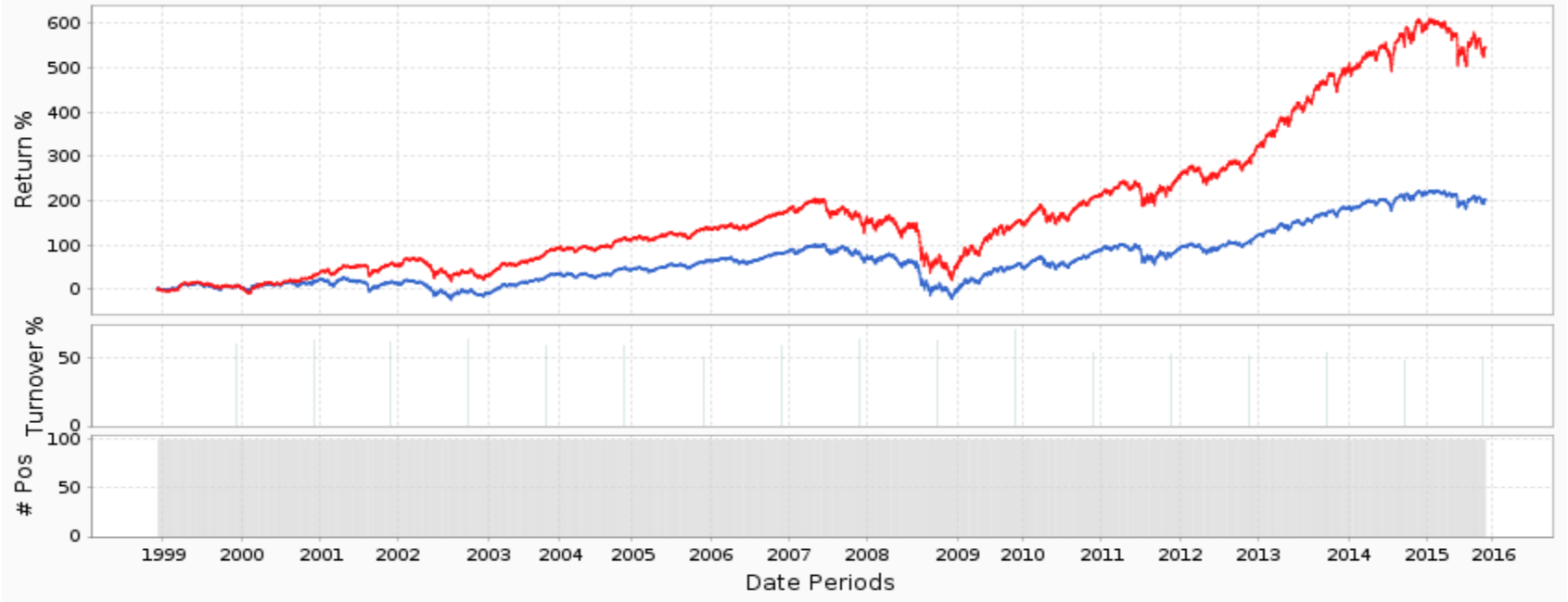
Shareholder Yield (V3.1) Take-Aways

Statistics	Total Return	Annualized Return	Max Drawdown	Sharpe	Sortino	StdDev	CorrelBench	R-Squared	Beta	Alpha
SYLD 3.1	775.05%	13.62%	-66.73%	0.67	0.94	20.42%	0.83	0.7	1.09	11.70%
SYLD Top 100	545.20%	11.60%	-60.36%	0.64	0.87	17.26%	0.87	0.75	0.96	9.19%
S&P 500 Eq Weight (RSP)	202.53%	6.73%	-60.83%	0.36	0.49	17.24%	-	-	-	-
S&P 500 (SPY)	69.00%	3.14%	-57.00%	0.15	0.19	15.55%	-	-	-	-

Risk Statistics (MONTHLY Period)

- S&P500, equal weight, re-balanced annually is a pretty good "screen" (buy RSP instead?)

- SYLD V3.1 screen is very good compared to our benchmarks
  - Good CAGR and Sharpe, significantly higher MDD and Std Dev
  - Beta and R-squared are low, alpha high

- SYLD – which buys 100 stocks – will probably have somewhat worse performance
  - Time and effort for screening pays off

Event Take-Aways!

Volatility & Drawdown Control

- Volatility and Drawdown
- S&P500 History Lessons
- Buy & Hold
- Timing
- Direct Volatility Control

**STOCK SCREENING PROCESS FOR ACTIVE TRADERS**

Volatility and Drawdown

- We all like the gains from the stock screens – but we hate losing money even more!
    - Behavioral finance has a lot to say about this part of investing
- While standard deviation is one measure of volatility, drawdown is what drives people to sell
    - A quick review of DrawDown (DD) and Max DD (MDD) follows
- There are other measures of risk – but DD, MDD and SD are good general indicators
    - Other risk measures include VaR, CVaR, Ulcer Index, etc.

Drawdown Illustration

Portfolio Return and Drawdowns
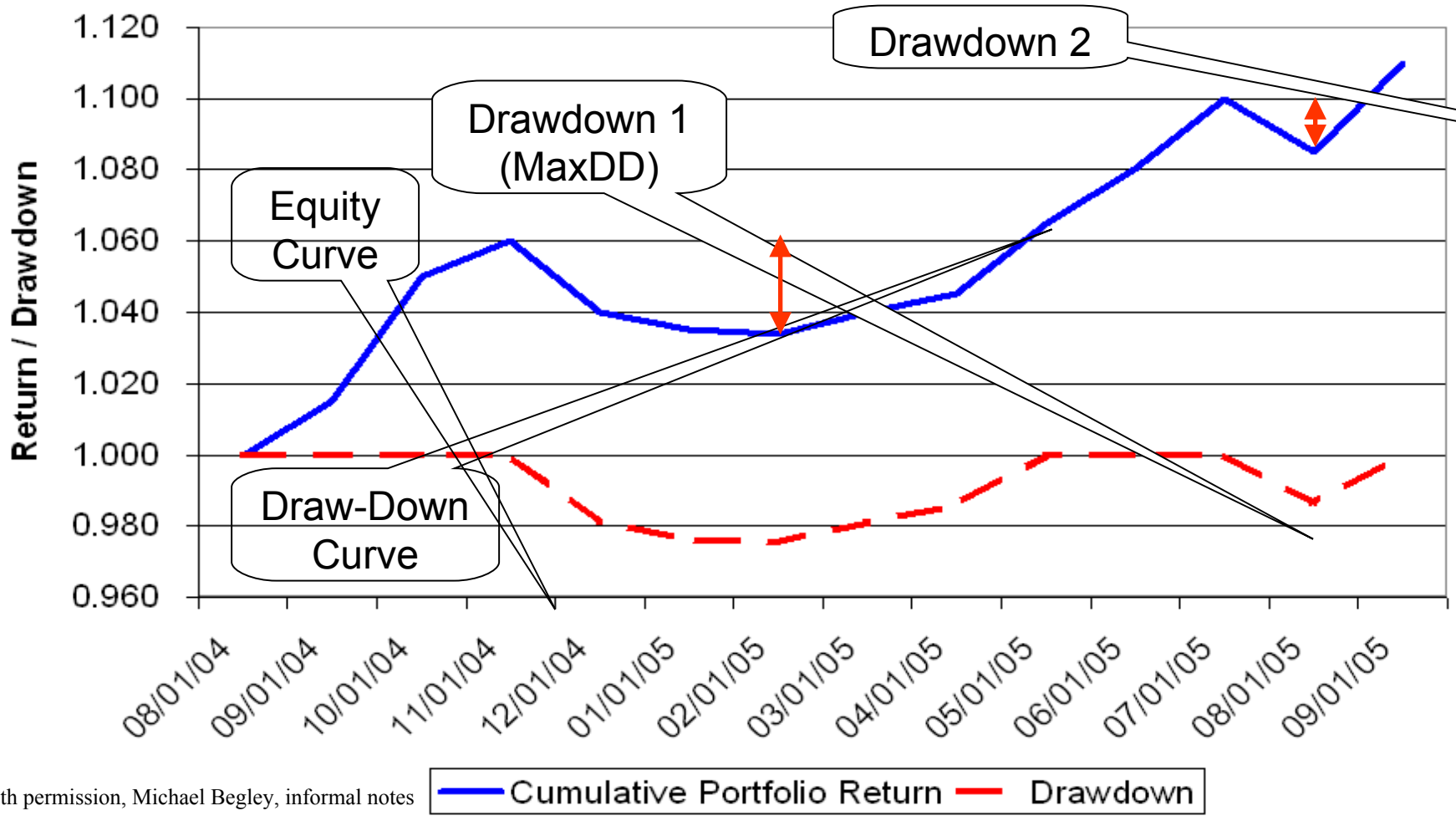
with permission, Michael Begley, informal notes

S&P 500 History Lessons (Market Weighted)

- Let's look at each year from '99 on and see the market statistics

- Gain: 4.7% (average) but ranged from -38% to +29%

- MDD has averaged -17% but was as bad as -48%

- Std Deviation (SD) averaged 14% but ranged from 5.1% to 23.5%

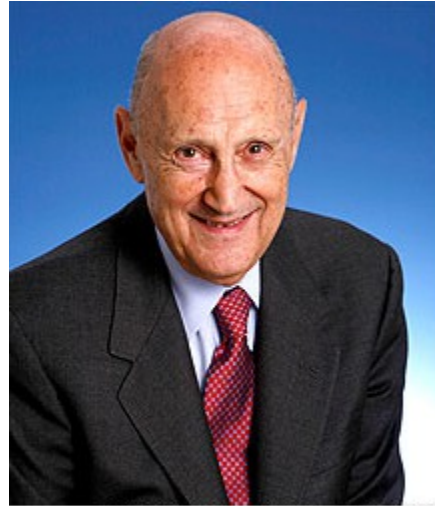| Year Ends	Benchmark	Annualized Return	Risk Statistics (MONTHLY Period)		
			Drawdown	Sharpe	StdDev
1/1/2000	S&P 500 MktCap	18.38%	-12.08%	0.89	13.68%
1/1/2001	S&P 500 MktCap	-12.66%	-17.20%	-0.45	15.48%
1/1/2002	S&P 500 MktCap	-13.04%	-29.70%	-0.84	22.73%
1/1/2003	S&P 500 MktCap	-23.37%	-33.75%	-1.19	21.09%
1/1/2004	S&P 500 MktCap	26.62%	-14.05%	3.67	8.02%
1/1/2005	S&P 500 MktCap	9.13%	-7.99%	0.87	7.51%
1/1/2006	S&P 500 MktCap	4.35%	-6.67%	0.35	9.86%
1/1/2007	S&P 500 MktCap	12.67%	-7.70%	1.1	6.00%
1/1/2008	S&P 500 MktCap	3.45%	-10.41%	-0.08	9.05%
1/1/2009	S&P 500 MktCap	-38.39%	-48.00%	-1.78	23.53%
1/1/2010	S&P 500 MktCap	23.43%	-27.97%	1.56	21.35%
1/1/2011	S&P 500 MktCap	14.01%	-15.56%	0.89	19.73%
1/1/2012	S&P 500 MktCap	1.54%	-19.62%	0.02	18.48%
1/1/2013	S&P 500 MktCap	13.29%	-9.95%	0.69	10.98%
1/1/2014	S&P 500 MktCap	29.43%	-5.50%	2.6	8.78%
1/1/2015	S&P 500 MktCap	11.54%	-7.79%	3.29	5.06%
1/1/2016	S&P 500 MktCap	-1.01%	-12.09%	0.21	16.04%
	Hi	29.4%	-5.5%	3.67	23.5%
	Lo	-38.4%	-48.0%	-1.78	5.1%
	Avg	4.7%	-16.8%	0.69	14.0%
	SD	18.1%	11.7%	1.48	6.3%
	+1 SD	22.7%	-5.2%	2.17	20.2%
	-1 SD	-13.4%	-28.5%	-0.78	7.7%

S&P 500 History Lessons (Equal Weighted)

- Let's look at each year from '99 on and see the market statistics
- Gain: 8.6% (average) but ranged from -41% to +43%
- MDD has averaged -18% but was as bad as -53%
- Std Deviation (SD) averaged 15.6% but ranged from 6.8% to 28.6%

Year Ends	Benchmark	Annualized Return	Risk Statistics (MONTHLY Period) Drawdown	Sharpe	StdDev
1/1/2000	S&P 500 Equal Weight	4.81%	-13.98%	0.63	14.27%
1/1/2001	S&P 500 Equal Weight	11.20%	-11.58%	0.98	16.09%
1/1/2002	S&P 500 Equal Weight	1.14%	-26.39%	-0.54	21.06%
1/1/2003	S&P 500 Equal Weight	-16.81%	-37.04%	-1.27	25.22%
1/1/2004	S&P 500 Equal Weight	34.04%	-15.52%	4.56	12.65%
1/1/2005	S&P 500 Equal Weight	15.14%	-8.91%	1.71	9.82%
1/1/2006	S&P 500 Equal Weight	8.08%	-7.68%	1.03	12.99%
1/1/2007	S&P 500 Equal Weight	13.90%	-8.94%	0.93	7.23%
1/1/2008	S&P 500 Equal Weight	-0.03%	-13.18%	-0.73	10.51%
1/1/2009	S&P 500 Equal Weight	-40.93%	-52.65%	-2.18	28.60%
1/1/2010	S&P 500 Equal Weight	43.01%	-30.92%	2.57	26.70%
1/1/2011	S&P 500 Equal Weight	19.89%	-16.81%	1.47	20.96%
1/1/2012	S&P 500 Equal Weight	-0.44%	-23.21%	-0.1	20.01%
1/1/2013	S&P 500 Equal Weight	15.23%	-11.44%	0.95	10.09%
1/1/2014	S&P 500 Equal Weight	31.19%	-6.33%	3.41	9.23%
1/1/2015	S&P 500 Equal Weight	13.11%	-8.85%	3.28	6.81%
1/1/2016	S&P 500 Equal Weight	-5.67%	-13.17%	-0.15	13.25%
	Hi	43.0%	-6.3%	4.56	28.6%
	Lo	-40.9%	-52.7%	-2.18	6.8%
	Avg	8.6%	-18.0%	0.97	15.6%
	SD	19.6%	12.4%	1.77	6.9%
	+1 SD	28.2%	-5.6%	2.74	22.5%
	-1 SD	-11.0%	-30.5%	-0.80	8.7%

Buy & Hold

- Buy & Hold has historically worked well in the US <u>over the long term</u>

  - Long term: 10+ years –longer if inflation adjusted

  - Secular bear markets average around 17 years

"In the long run," says Burton Malkiel, "I think this is going to be an extraordinary opportunity for investors."

- The biggest problem with B&H is that **<u>people don't do it!</u>** (i.e., Hold)

  - People sell at the bottom due to drawdowns, fear, pain of losses taken, etc.
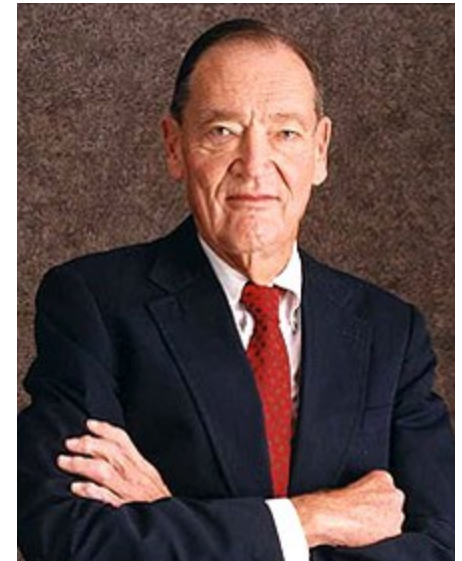
"It's one thing to get out of the market at the perfect time," says John Bogle, "and quite another to get back in at the perfect time."

Buy & Hold: Follow the Plan

- Diversification and asset allocation can help reduce volatility and DD
  - Should be part of your overall plan
- Know your (S&P500) history – let it help set your expectations
- Ignore CNBC, Cramer, TV, articles, blogs, etc. – they're all just noise
- Only make **planned, periodic** account changes
  - Re-balancing, rotating portfolio, asset allocation changes due to changed circumstances, etc.
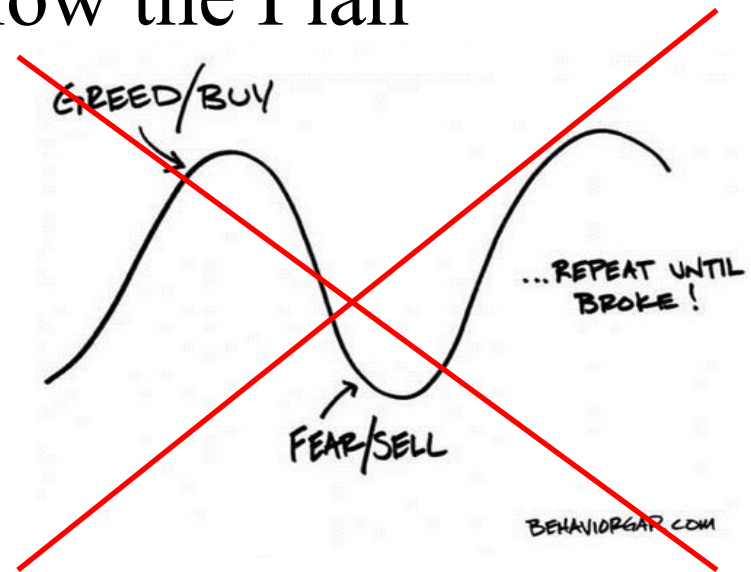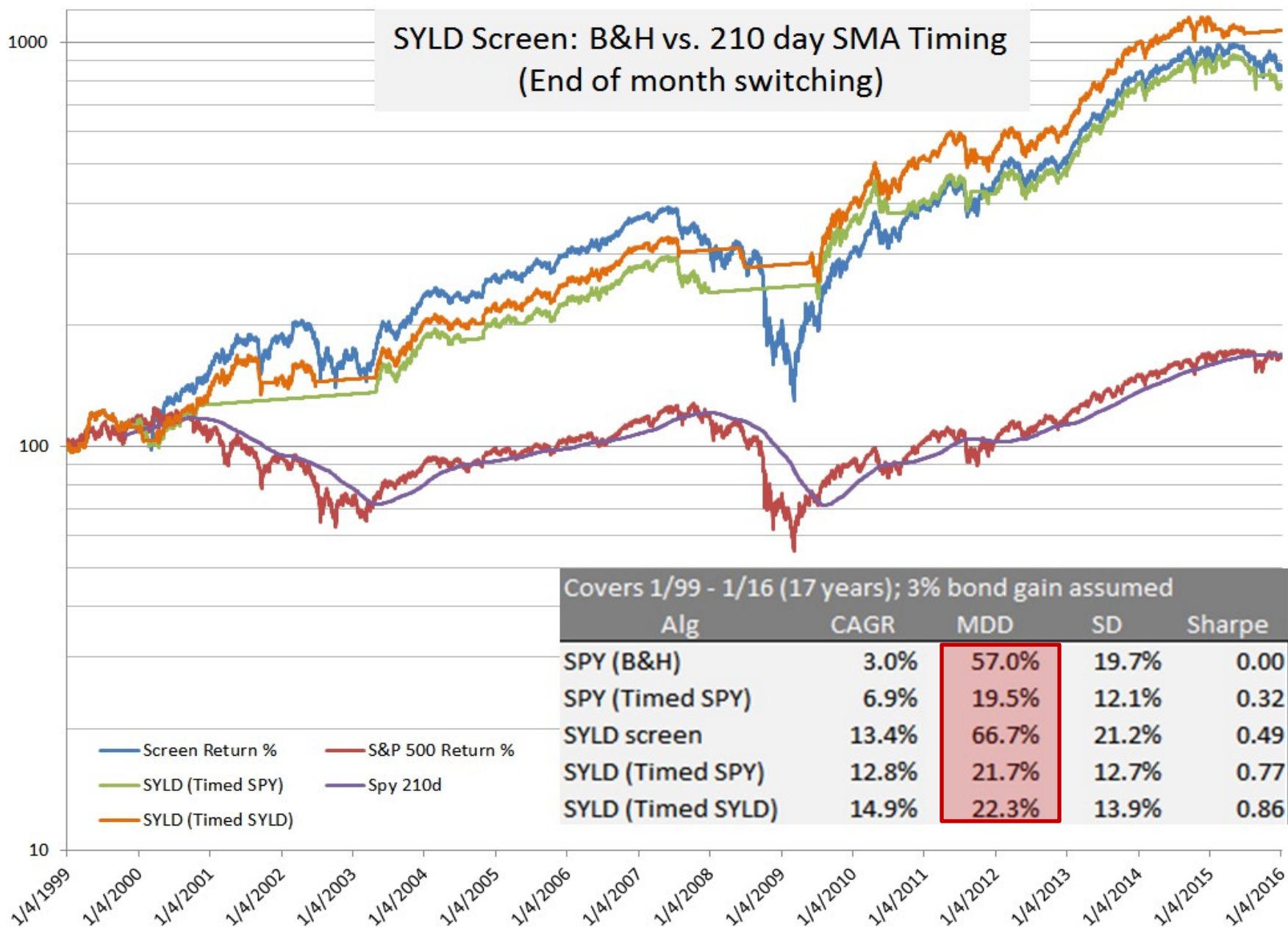
Timing

- One way to control volatility and DD is to "Time the Market"
- Many believe this is a fool's errand
  - Of course funds that do "Quantitative" "Tactical" or "Dynamic Asset Allocation" aren't timing the market
- Two simple timing systems are presented
  - 210d/10M SMA on the SPY or on the SYLD screen.
    - Above the 10M SMA stay in the market; below go to cash
  - The system is implemented at the end-of-month to reduce "noise" trades
  - For those interested, the spreadsheet with the data is available

Timing the Markets is a Guessing Game

$3,637	$3,440	$3,208	$2,913	$2,612	$1,905	$1,622	$1,382	$1,196
13.8%	13.2%	12.4%	11.3%	10.1%	6.7%	5.0%	3.3%	1.8%
Missed Bottom 40 Days	Missed Bottom 30 Days	Missed Bottom 20 Days	Missed Bottom 10 Days	All Days	Missed Top 10 Days	Missed Top 20 Days	Missed Top 30 Days	Missed Top 40 Days

$1000 investment in TSE 300 for ten years ending September 1997.

SYLD Screen: B&H vs. 210 day SMA Timing
(End of month switching)

Covers 1/99 - 1/16 (17 years); 3% bond gain assumed				
Alg	CAGR	MDD	SD	Sharpe
SPY (B&H)	3.0%	57.0%	19.7%	0.00
SPY (Timed SPY)	6.9%	19.5%	12.1%	0.32
SYLD screen	13.4%	66.7%	21.2%	0.49
SYLD (Timed SPY)	12.8%	21.7%	12.7%	0.77
SYLD (Timed SYLD)	14.9%	22.3%	13.9%	0.86

Legend:
- Screen Return %
- S&P 500 Return %
- SYLD (Timed SPY)
- Spy 210d
- SYLD (Timed SYLD)

Direct Volatility Control

- Much of this approach comes from articles by Darwin Investments

- To address volatility and DD, directly measure volatility and – when the market becomes "too volatile" – reduce volatility by adding cash

- Our chosen target volatility is a 1% daily SD on a trailing 63 day basis

  - If the SD is above 1% --- add cash to reduce volatility down to 1% SD

- Implement the volatility check at the end of the month

- Note you ***never completely exit*** the market with this approach

GESTALTU

THE RESEARCH PORTAL FOR DARWIN INVESTMENT STRATEGIES

Low-Volatility ETFs

Funds targeting low-volatility stocks have proved their worth in the recent market downturn.

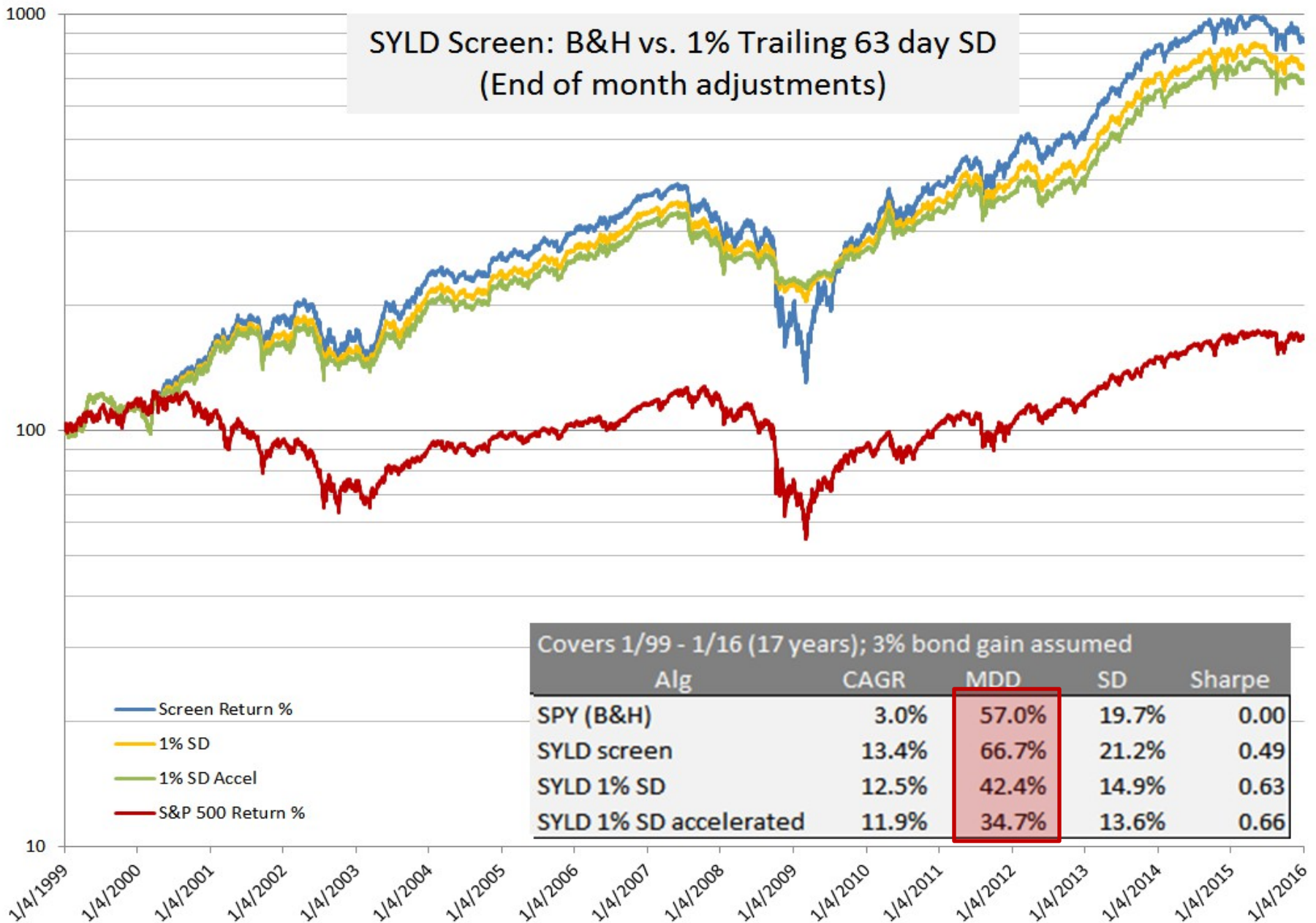| Name/Ticker	Return*
EGShares Low-Vol EM ETF (HILO)	-11.13%
MSCI Emerging Markets Index	-13
PowerShares S&P 500 ETF (SPLV)	-2.21
SPDR S&P 500 ETF (SPY)	-8.40
Russell 1000 Low-Vol (LVOL)	-5.4
Russell 1000 Index	-8.6
Russell 2000 Low-Vol ETF (SLVY)	-7.54
Russell 2000 Index	-11
Russell Developed ex-U.S. ETF (XLVO)	-7.89
Russell Developed ex-U.S. Index	-12.47

Source: Morningstar Inc.   *From 4/3-5/18

Beta Volatility

Volatility Control: Continuous and Stepwise

Rolling SD as percent (top limit)	Equity Weight as a Percent	Equity Weight Staircase
0.00%	100%	100%
1.00%	100%	100%
1.10%	90.8%	100%
1.11%	90.0%	90%
1.24%	80.6%	90%
1.25%	80.0%	80%
1.42%	70.5%	80%
1.43%	70.0%	70%
1.66%	60.4%	70%
1.67%	60.0%	60%
1.99%	50.3%	60%
2.00%	50.0%	50%
2.49%	40.2%	50%
2.50%	40.0%	40%
3.32%	30.1%	40%
3.33%	30.0%	30%
4.99%	20.0%	30%
5.00%	20.0%	20%
9.99%	10.0%	20%
10.00%	10.0%	10%

Equity Weight as a Percent of Total
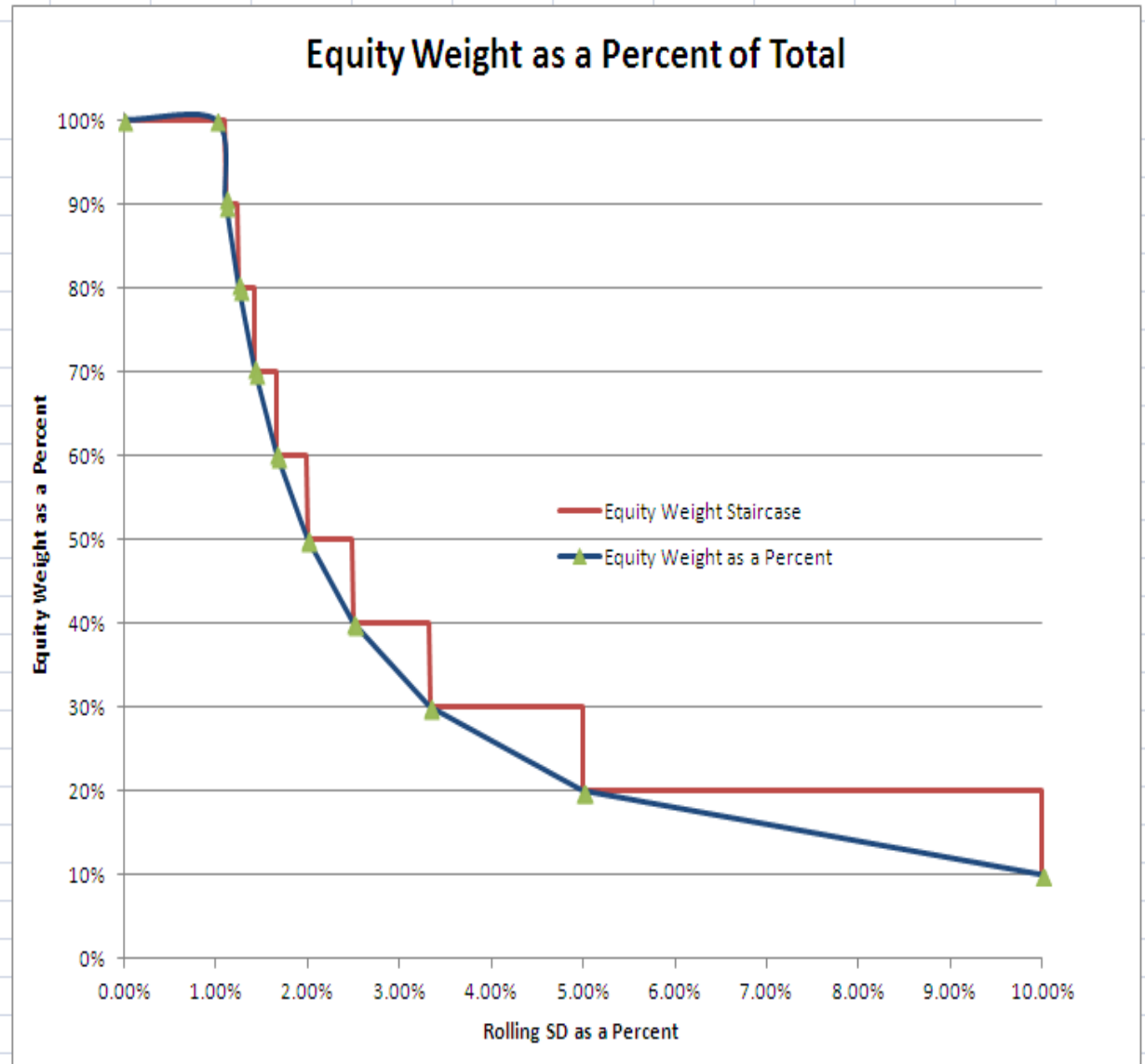
SYLD Screen: B&H vs. 1% Trailing 63 day SD (End of month adjustments)

Covers 1/99 - 1/16 (17 years); 3% bond gain assumed				
Alg	CAGR	MDD	SD	Sharpe
SPY (B&H)	3.0%	57.0%	19.7%	0.00
SYLD screen	13.4%	66.7%	21.2%	0.49
SYLD 1% SD	12.5%	42.4%	14.9%	0.63
SYLD 1% SD accelerated	11.9%	34.7%	13.6%	0.66

Legend:
- Screen Return %
- 1% SD
- 1% SD Accel
- S&P 500 Return %

Volatility and Drawdown Take-Aways

Covers 1/99 - 1/16 (17 years); 3% bond gain assumed				
Alg	CAGR	MDD	SD	Sharpe
SPY (B&H)	3.0%	57.0%	19.7%	0.00
SPY (Timed SPY)	6.9%	19.5%	12.1%	0.32
SYLD screen	13.4%	66.7%	21.2%	0.49
SYLD (Timed SPY)	12.8%	21.7%	12.7%	0.77
SYLD (Timed SYLD)	14.9%	22.3%	13.9%	0.86
SYLD 1% SD	12.5%	42.4%	14.9%	0.63
SYLD 1% SD accelerated	11.9%	34.7%	13.6%	0.66

- B&H can be effective – but you need discipline

- Simple timing systems have been effective BUT they can be frustrating in bull markets
  - They **also require discipline** to follow
  - You can almost read the SMA values, and make timing decisions, from a chart of the SPY

- Simple volatility control also works well
 - Will need a spreadsheet to implement this system

Event Take-Aways!

Implementation Details

- Running the Screen
- Doing the Trades

Running the Screen

- SYLD screen shown is run annually
- For a "Buy and Hold" Strategy…
  - Run near the screen's anniversary date. 1 day's work per year!!
  - In taxable accounts, sell dates are offset to minimize taxes (long vs. short term gains). Over time this may get messy.
- For timing and/or volatility control…
  - When re-entering the market, buy the same stocks – no need to run the screen!
  - Edge case: If you're 11 months into the year, re-run the screen with intention to keep stocks for 12 months (saves a trade)
  - In taxable accounts watch for wash sales – may need to adjust buy date
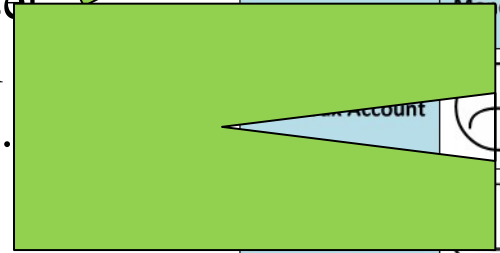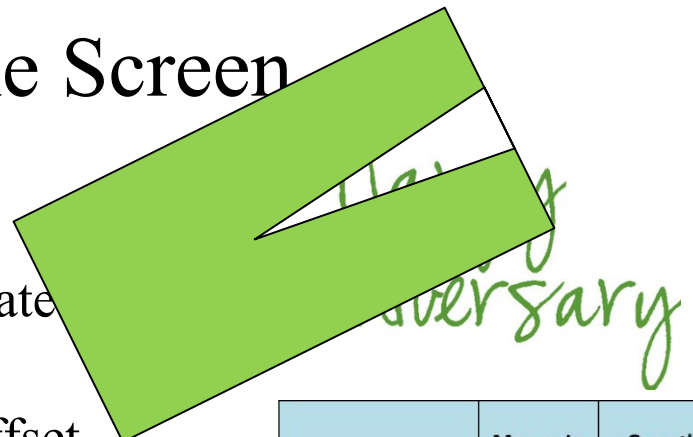
	Money In	Growth	Money Out
Account	:(	:(	:)
	:)	:)	:(
Roth IRA	:(	:)	:)

Running the Screen

- For partial cash positions…
  - This may be needed for some timing and volatility adjustment schemes
  - The back-test assumes an equal percentage of $$$ taken from each stock – i.e., sell some of each stock – which increases the trade count
- All screens should be easily implemented in SIPro, P123 and many free screeners
  - Again, some free screeners may have "data quality" issues
- Hesitant?? Start off small.
  - Commissions insignificant as you scale up

Doing the Trades: Problems and Solutions

- A major objection to screening is the amount, and costs, of trading
  - One 25-stock screen rotated annually results in 50 trades/year
  - Assume 1 timing-event per year and you're up to 100 trades/year
  - Monthly volatility adjustments can add another 100-200 trades/year
  - High costs in terms of time and $$$
- Ways to address this problem
  - Find a lower-cost brokerage, negotiate fees with broker
  - Wrap accounts
  - Brokerages aimed at this market segment *(next slide...)*

Low Cost Stock Trading

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Bond Folios   **Asset Allocation Folios**   **Geographic Folios**

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A Window Trade is an innovative way of placing trades designed for long term investors. Instead of executing immediately, trades are grouped together, matched internally and remaining orders are sent to market twice a day.

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MarketGlide Target Date Folios

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		Name		%
⊗	🔓	▼ Home Improvement Stores ❓		53.4%
❌	🔓	Home Depot Inc.		27.6%
⊗	🔓	Lowe's Cos.		23.7%
⊗	🔓	Lumber Liquidators Holdings Inc.		2.1%

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BULL CASE (46%)
Large oil spills, such as the one caused by the Deepwater Horizon explosion in 2010, can lead to delays in new exploration, or extensions of existing prohibitions.

BEAR CASE (38%)
The moratorium on drilling in the Outer Continental shelf is due to expire at the end of 2012. This would open up an area with estimated reserves between 67 and 115 billion barrels for exploration.

NAME	INDEX
Biotech Breakthroughs — Created By: m Motif Investing	2321 (↑ 1.63%)
Cleantech Everywhere — Created By: m Motif Investing	2268 (↑ 0.28%)
Chinese Solar — Created By: m Motif Investing	1682 (↓ 0.68%)
Dividend Stars — Created By: m Motif Investing	1174 (↑ 0.96%)
3D Printing — Created By: m Motif Investing	1246 (↑ 1.06%)

Implementation Take-Aways

- Once a screen is developed, the time to run and implement it is not large

- If you do timing or volatility control the spreadsheet to automate this is not complex (you have access to an example….)

- Depending on your strategy you may do a lot of trading – so cost will be an issue

- There are brokerages that minimize the costs – both time and money -- for this sort of trading

Session Take-Aways
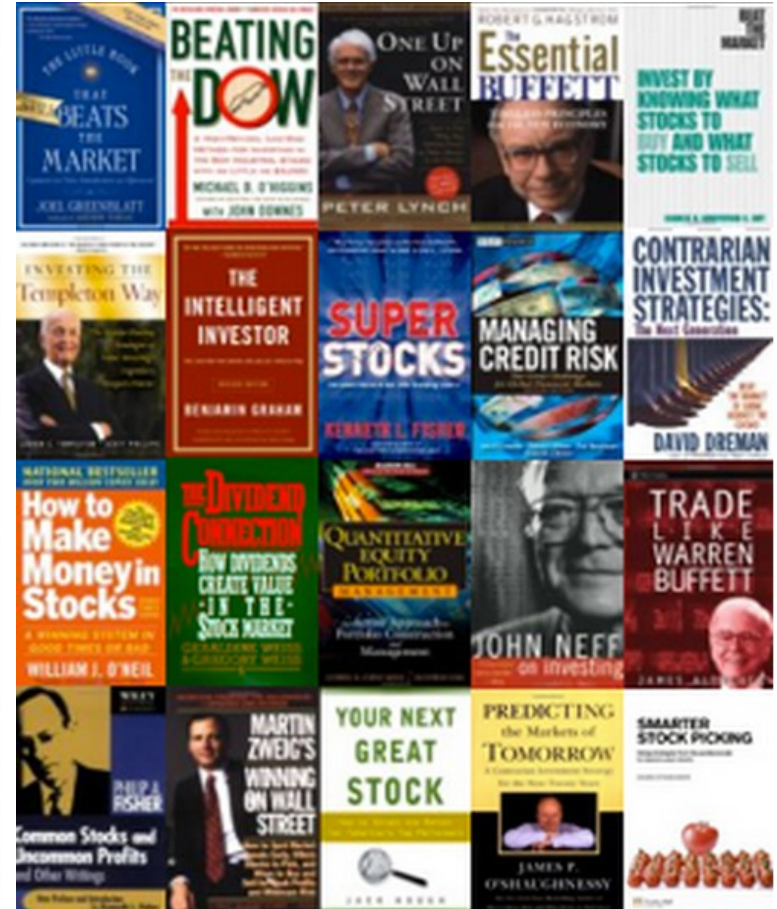
Session Take-Aways

- Covered some questions about how stock screen folios might fit into your investment plans

- Presented a screen that is worth your time and trouble to pursue
    - Can also use SYLD and FYLD if the screening isn't a good "fit" for you
    - More screens in the "Extra Stuff" section

- Showed the importance of comparing results to various benchmarks and universes

Session Take-Aways

- Looked at Buy & Hold and simple timing and volatility control schemes
  - Pick the approach you are most comfortable with – or you won't stick with it
- Reviewed some of the items needed to implement these screens
- Provided pointers to a few brokerages that work well with this style of investing

- Now it's up to YOU to take the next step
  - And remember it can be a small one…

Thanks much!!

*al_zmyslowski@yahoo.com_*
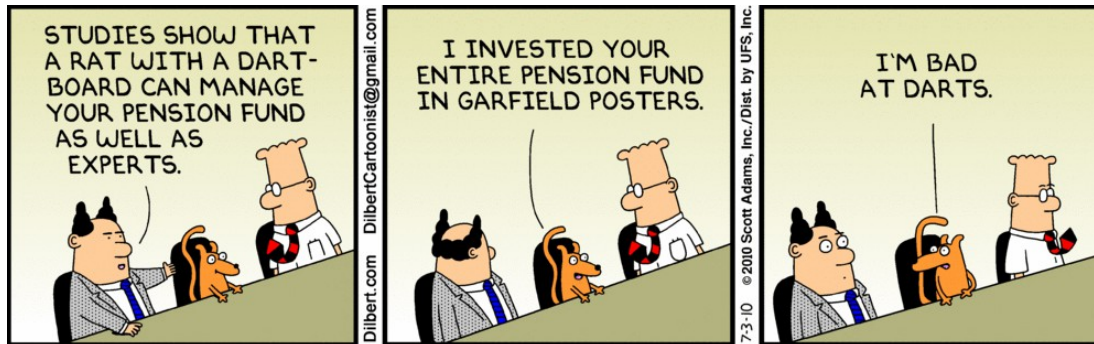
A Few More Topics
(If Time Permits…)

The Shareholder Yield Screen

Shareholder Yield V3: S&P500 Fair Comparison

- While the S&P500 is a useful benchmark comparison we will look into two others as well

- #1: S&P500 stocks, equal weighted, rebalanced annually.
  - This captures the small cap, low price and value effects

- #2: Sets of 25 stocks randomly picked from the S&P500 annually.
  - Create 2,000 of these random sets
  - Do some statistical tests to see how well the screen is doing
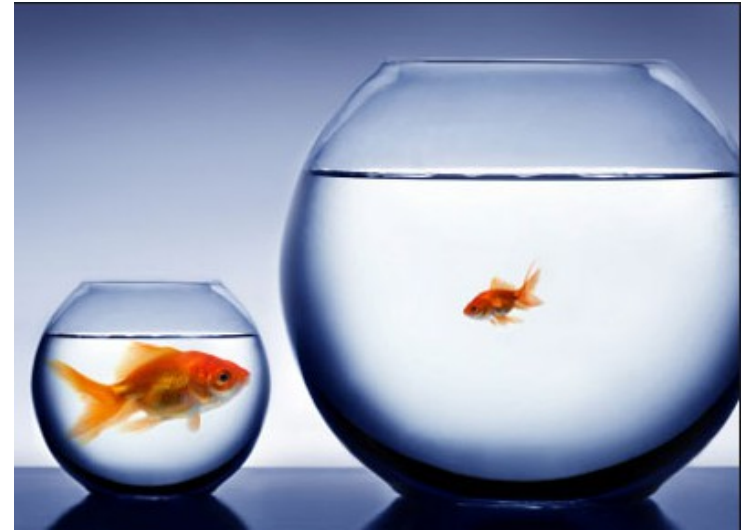
Shareholder Yield (V3) vs. SP500 Equal Weight

🔒 🗒 **Shareholder Yield V3**

| ↔ □ ▭ | **About** | **Main Settings** | **Rules** | **Hedge Rules** | **Backtest** | **Rolling Backtest** | Clear Results | Re-Run Backtest |

As Of	4/29/2014	📅 📧		
Universe	All Fundamentals - USA ▾		Benchmark	SPDR S&P 500 ETF Trust ▾
Method	Long ▾		Max No. Stocks (0 for all)	0
Ranking	No Ranking ▾		*NOTE: if no ranking is used, the order of results is random*	

🔒 🗒 **Shareholder Yield V3**

| ↔ □ ▭ | **About** | **Main Settings** | **Rules** | **Hedge Rules** | **Backtest** | **Rolling Backtest** | Clear Results | Re-Run Backtest |

| ❓ Show | 🪄 Add Wizard Rule | 📝 Add Free Form Rule | Clear Rules | As Of 4/29/2014 📅 📧 | Totals 7031 |

⊕ ✖ 📝 🟢		universe(sp500)	500 ⊐
⊕ ✖ 🪄 🟢 and		Daily $ Amount, 20 Day Average - Greater Than$ 1000K	500 ⊐
⊕ ✖ 📝 🔴 and		setvar(@PydnYld,10*(DbtTotPYQ-DbtTotPQ)/MktCap)	500 ⊐
⊕ ✖ 📝 🔴 and		setvar(@BuyBkYld,100*(SharesFDPYQ-SharesFDPQ)/SharesFDPYQ)	500 ⊐
⊕ ✖ 📝 🔴 and		setvar(@ShrHldrYld, Yield + @PydnYld + @BuyBkYld)	500 ⊐
⊕ ✖ 📝 🔴 and		frank("@ShrHldrYld", #Previous, #desc) > 80	500 ⊐

Shareholder Yield (V3) vs. SP500 Equal Weight

🔒 📄 Shareholder Yield V3

↔ ▭ ▬ | **About** | **Main Settings** | **Rules** | **Hedge Rules** | **Backtest** | **Rolling Backtest** | Clear Results | Re-Run Backtest

Price	Next Open ▼		Start Date - End Date	◄◄ ◄	1/2/1999 - 4/29/2014	► ►►	🗓

Rank Tolerance: 0.0   Max Pos % (0-100): 0.0   **1Y 5Y 10Y Max Get More Data**

Slippage %: 0.0   Carry Cost %: 0.0   Rebalance Frequency: 1 Year ▼

Long Weight %: 100.0   Save Log ☐

Statistics

	Total Return	Annualized Return	Max Drawdown	Sharpe Ratio	Sortino Ratio	Standard Deviation	Correlation with Benchmark	R-Squared	Beta	Alpha
Screen	286.93%	9.24%	-57.86%	0.27	0.35	19.59%	0.78	0.61	0.76	4.60%
SPDR S&P 500 ETF Trust	99.39%	4.61%	-55.42%	0.03	0.04	20.28%	-	-	-	-

Legend: Screen — SPDR S&P 500 ETF Trust ▮ Turnover % ▮ Number of Positions
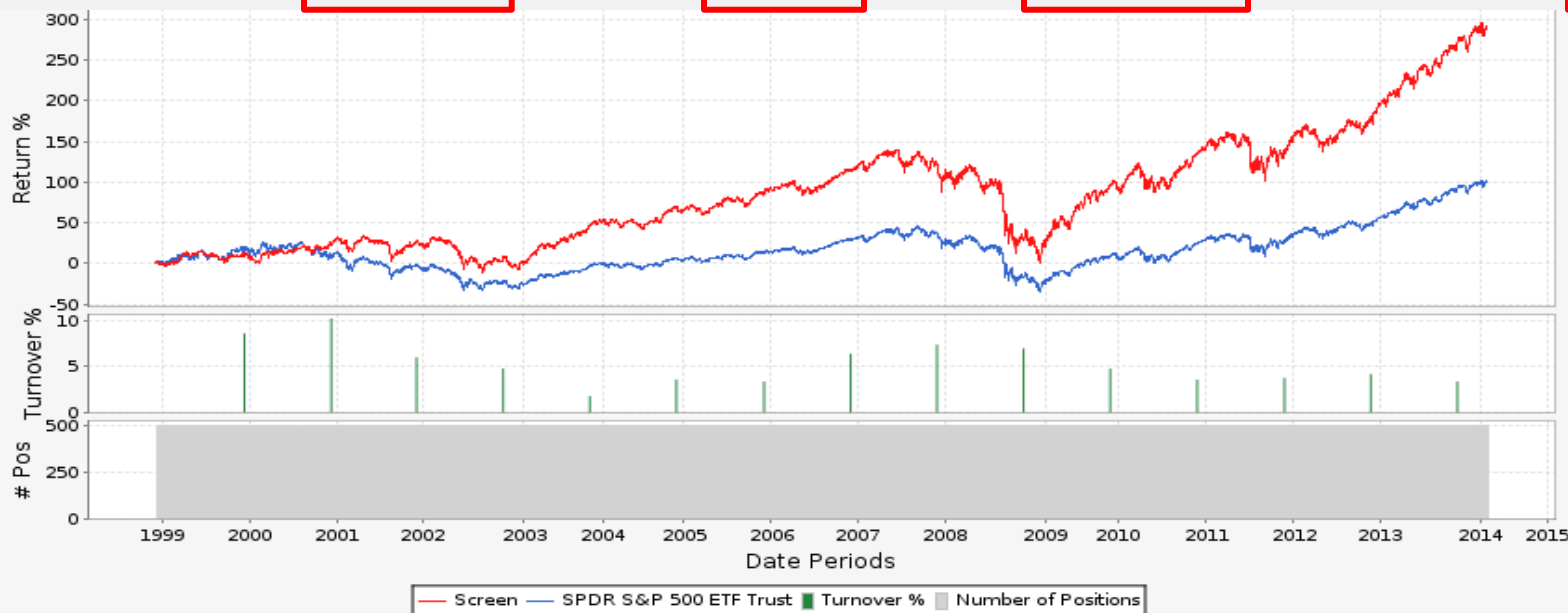
Shareholder Yield (V3) vs. Random 25

📕 📝 Shareholder Yield V3

| | About | Notes | **Main Settings** | Rules | Hedge Rules | Results | Backtest | Advanced Backtest |

Universe	All Fundamentals ⌄
Method	Long ⌄
Ranking	Quick Rank ⌄

Benchmark	S&P 500 ⌄
Max No. Stocks (0 for all)	25
NOTE: if no ranking is used, the order of results is random	

| **Formula** | random | Ranking Method | Higher is Better ⌄ |

📕 📝 Shareholder Yield V3

| | About | Notes | Main Settings | **Rules** | Hedge Rules | Results | Backtest | Advanced Backtest |

❓ Show   🪄 Add Wizard Rule   📝 Add Free Form   Clear   As Of 10/9/2013   Run   Totals ⟳   6916

⊕ 📝 ✖ 🟢	`universe(sp500)`	500
⊕ 🪄 ✖ 🟢 and	`Daily $ Amount, 20 Day Average - Greater Than$ 1000K`	500
⊕ 📝 ✖ 🔴 and	`setvar(@PydnYld, 10*(DbtTotPYQ-DbtTotPQ)/MktCap)`	500
⊕ 📝 ✖ 🔴 and	`setvar(@BuyBkYld,100*(SharesFDPYQ-SharesFDPQ)/SharesFDPYQ )`	500
⊕ 📝 ✖ 🔴 and	`setvar(@ShrHldrYld, Yield + @PydnYld + @BuyBkYld )`	500
⊕ 📝 ✖ 🔴 and	`frank("@ShrHldrYld", #Previous, #desc) > 95`	500

Shareholder Yield (V3) vs. Random 25

Annualized Return

Shareholder Yield V3:
 13.2% CAGR
 +3 SD, 99.9%

.0013   .0214   .1359   .3413   .3413   .1359   .0214   013

-4   -3   -2   -1   0   1   2   3   4

5.0%   6.6%   8.2%   9.9%   11.5%   13.1%
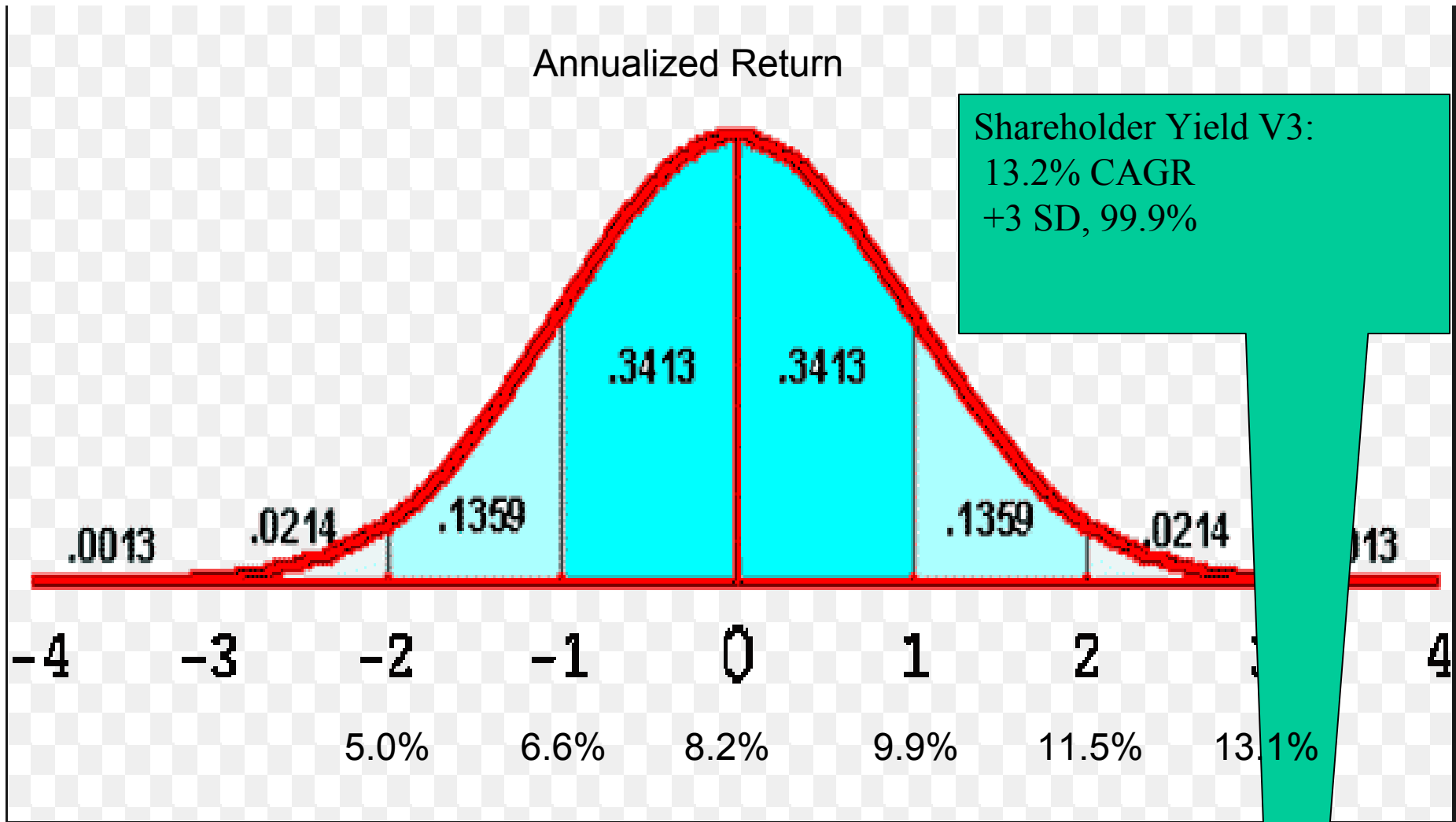
Note: Stats above generated on Fall '13 – slight differences with performance metrics updated through 4/29/14

Volatility and Drawdown Control

- S&P500 History Lessons

STOCK SCREENING PROCESS FOR ACTIVE TRADERS

S&P 500 History Lessons: Four Bad Bears

Four Bad Bears Total Returns Adjusted for Inflation

dshort.com
October 23, 2015

—— Crash of 1929   —— 1973 Oil Embargo   —— 2000 Tech Bubble   —— 2007 Financial Crisis

S&P 500 daily closes: S&P 500 Total return includes reinvested dividends.
Note: The S&P 90 is used for the Crash of 1929.

-48.2%
-56.0%
-50.3%
-79.2%

Market days →

Aligned Peaks:
September 16, 1929
January 11, 1973
March 24, 2000
October 9, 2007
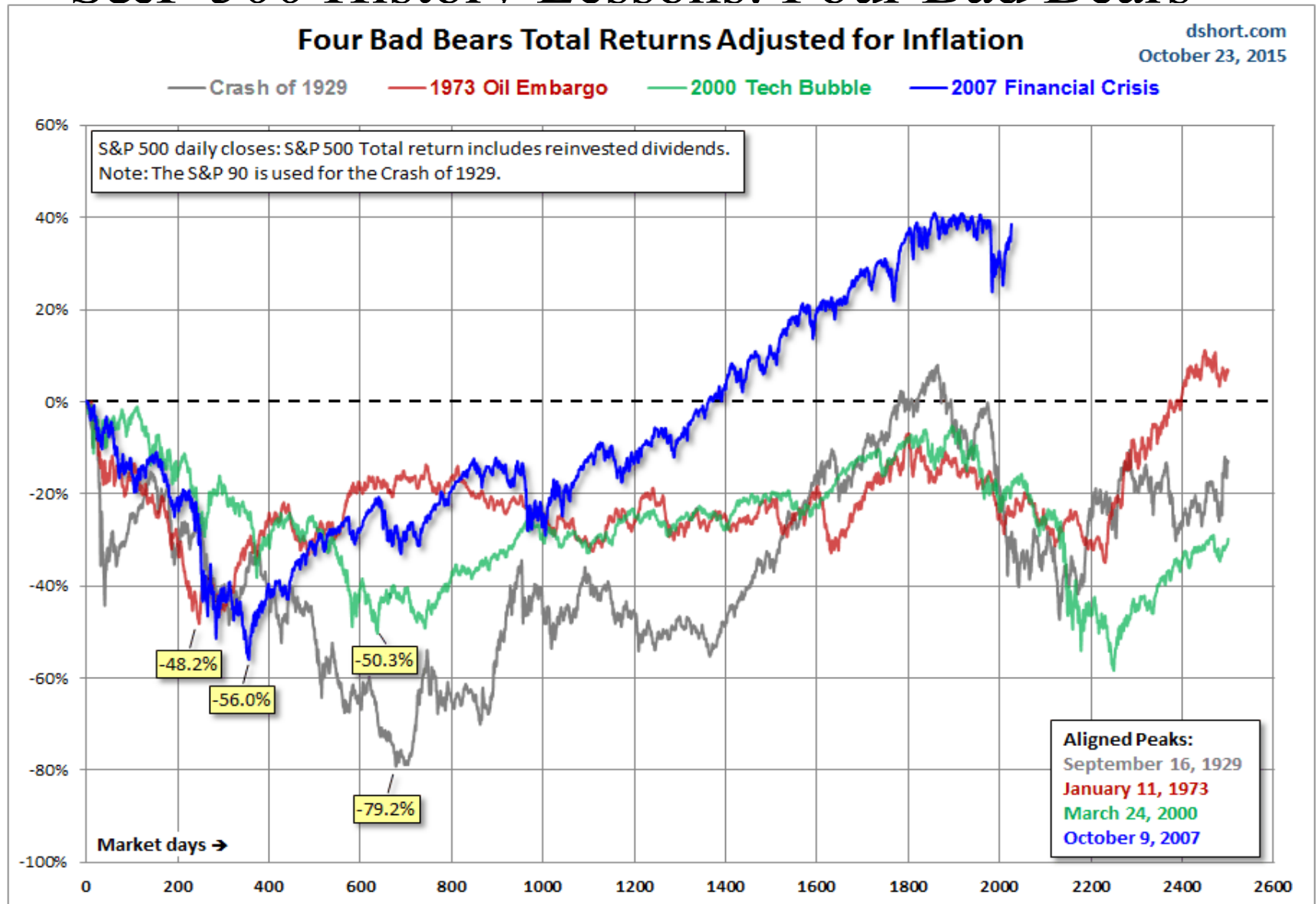
S&P Historical Composite: 1871-Present
Inflation-Adjusted Regression to Trend

dshort.com
January 2016
As of December

Callouts show the percent **above** and **below** the exponential regression trend line.
The regression slope represents an annualized growth rate of approximately 1.78%.

Real (inflation-adjusted) monthly averages of daily closes

The latest price is 87% above trend.
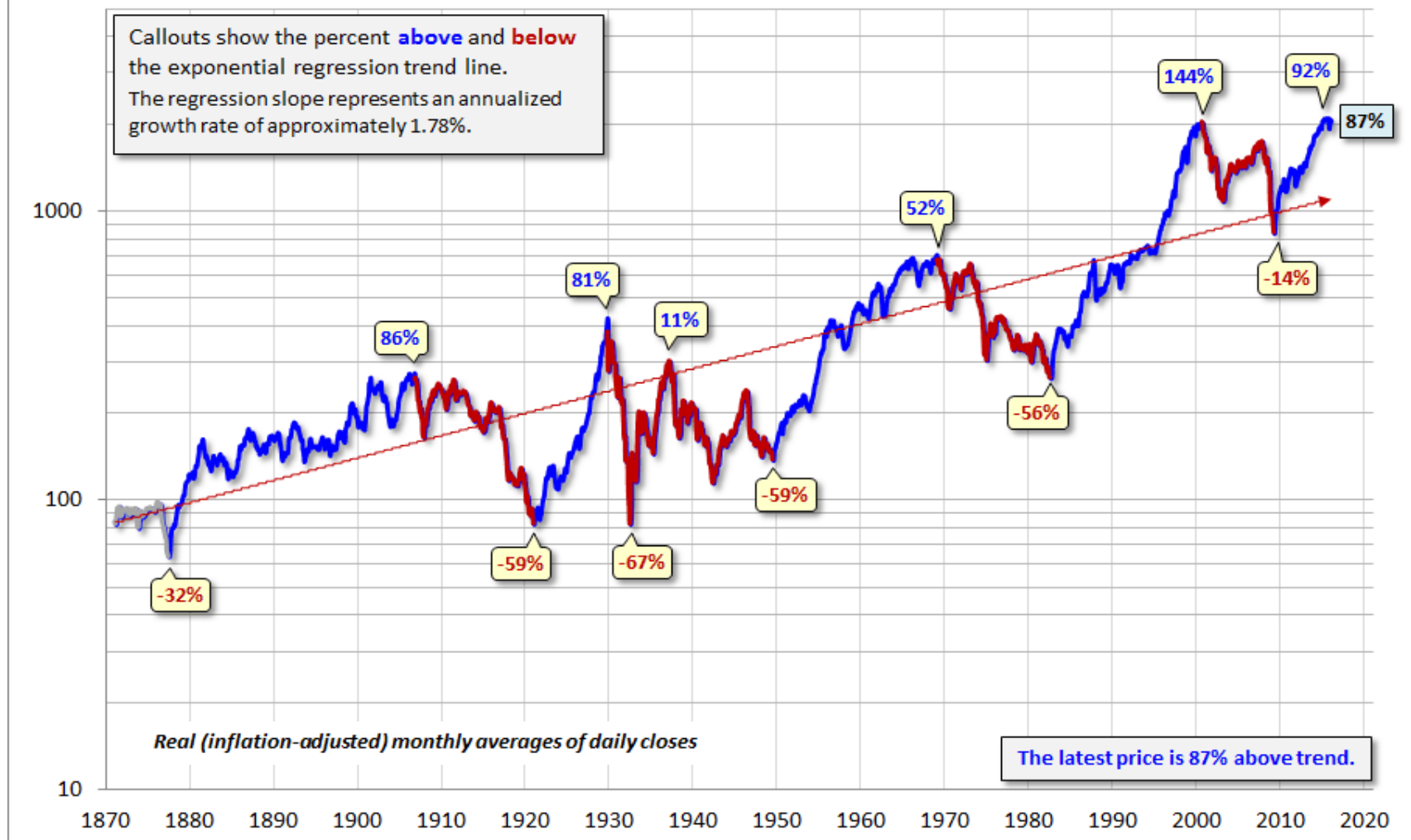
Shareholder Yield:
More "Fun with Volatility"

The Investment Pyramid
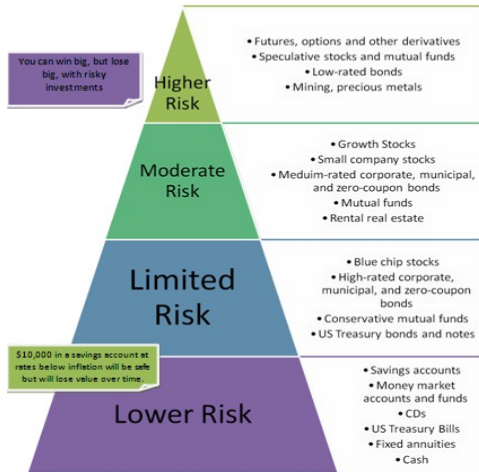
Hypothetical No-Risk Portfolio, Growth of $10,000
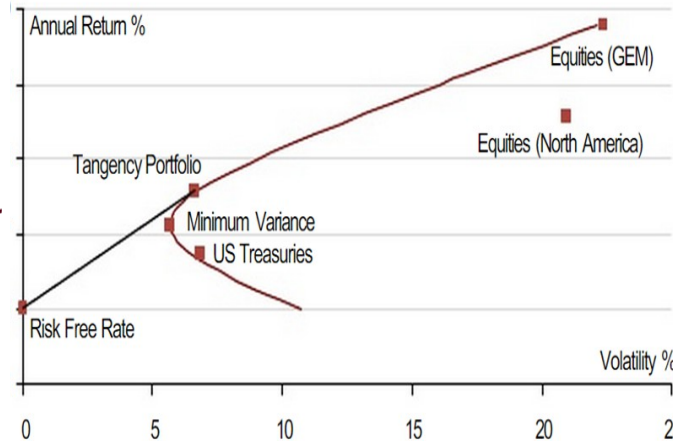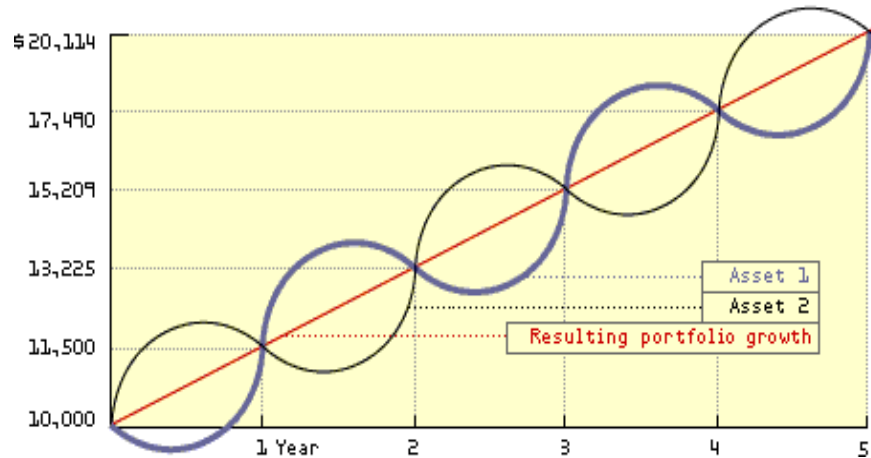
The 40/60 SYLD/VUSTX Mix

- So far we've looked at lowering volatility by adding cash

- What happens if we mix SYLD with a negatively correlated asset – e.g., LT bonds – instead??

- The following slides show results from different approaches:

  - A constant mix of 40/60 SYLD/VUSTX

  - Using a 40/60 mix only when a timing signal occurs

- Why VUSTX?? Has a long enough history for back-testing

  - Would use TLT in practice

Hypothetical No-Risk Portfolio, Growth of $10,000
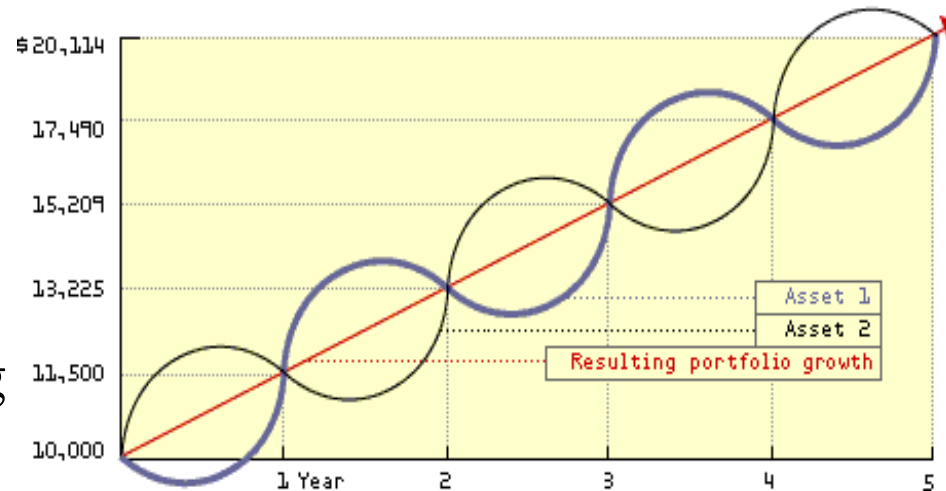
SYLD Screen: B&H vs. 1% Trailing 60 day SD vs. 40/60 SYLD/VUSTX Mix
(End of month adjustments)
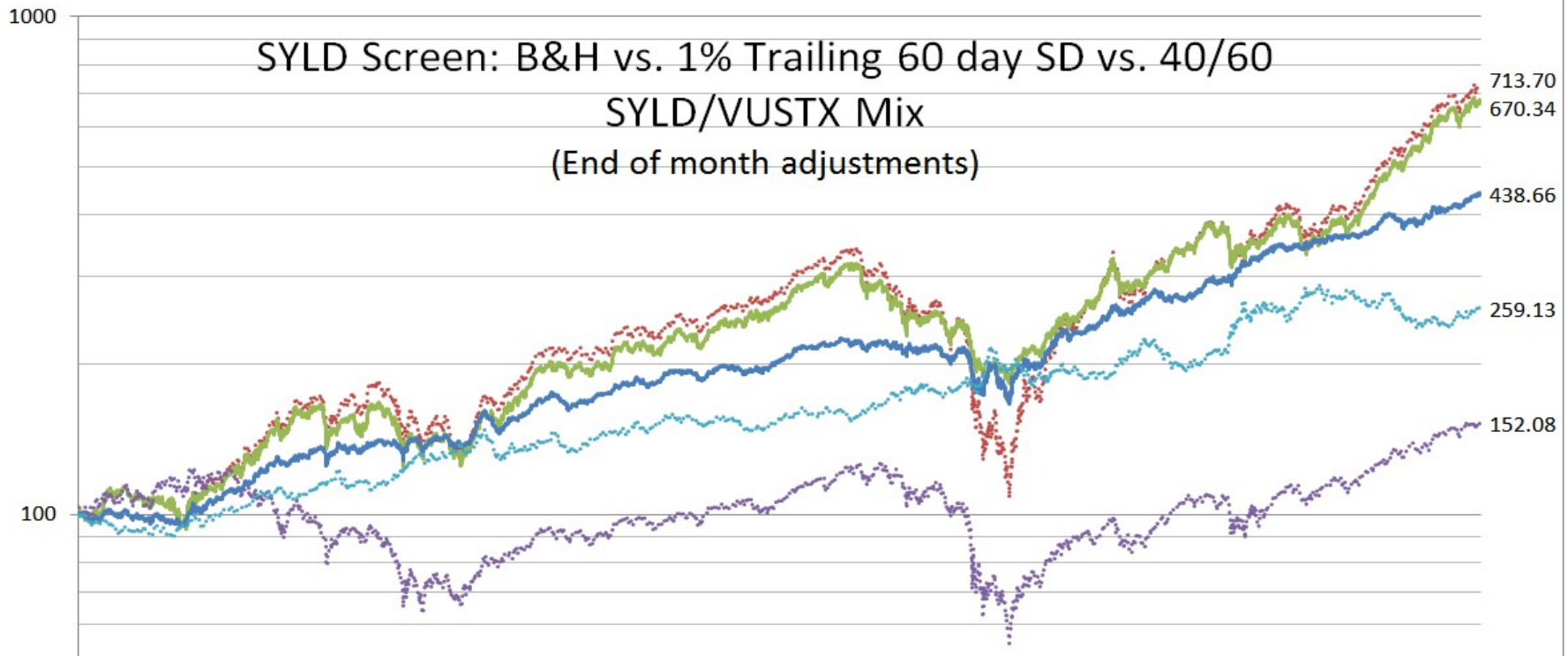
Covers 1/99 - 4/14 (15.3 years), 3% MMF assumed

	CAGR	MDD	SD	Sharpe
SPY	2.8%	57.0%	20.3%	-0.01
SYLD screen	13.7%	68.7%	21.7%	0.49
VUSTX	6.4%	18.4%	11.1%	0.31
SYLD 1% Normal	13.2%	42.8%	15.0%	0.68
Syld-Vustx 40/60	10.1%	26.3%	10.2%	0.70

Legend:
- SYLD
- SYLD 1% SD Normal
- S&P 500
- SYLD-VUSTX Mix
- VUSTX Adj

SYLD Screen: B&H vs. SYLD Timed (SYLD) Cash vs. SYLD Timed (SYLD) 40/60 SYLD/VUSTX Mix (End of month adjustments)
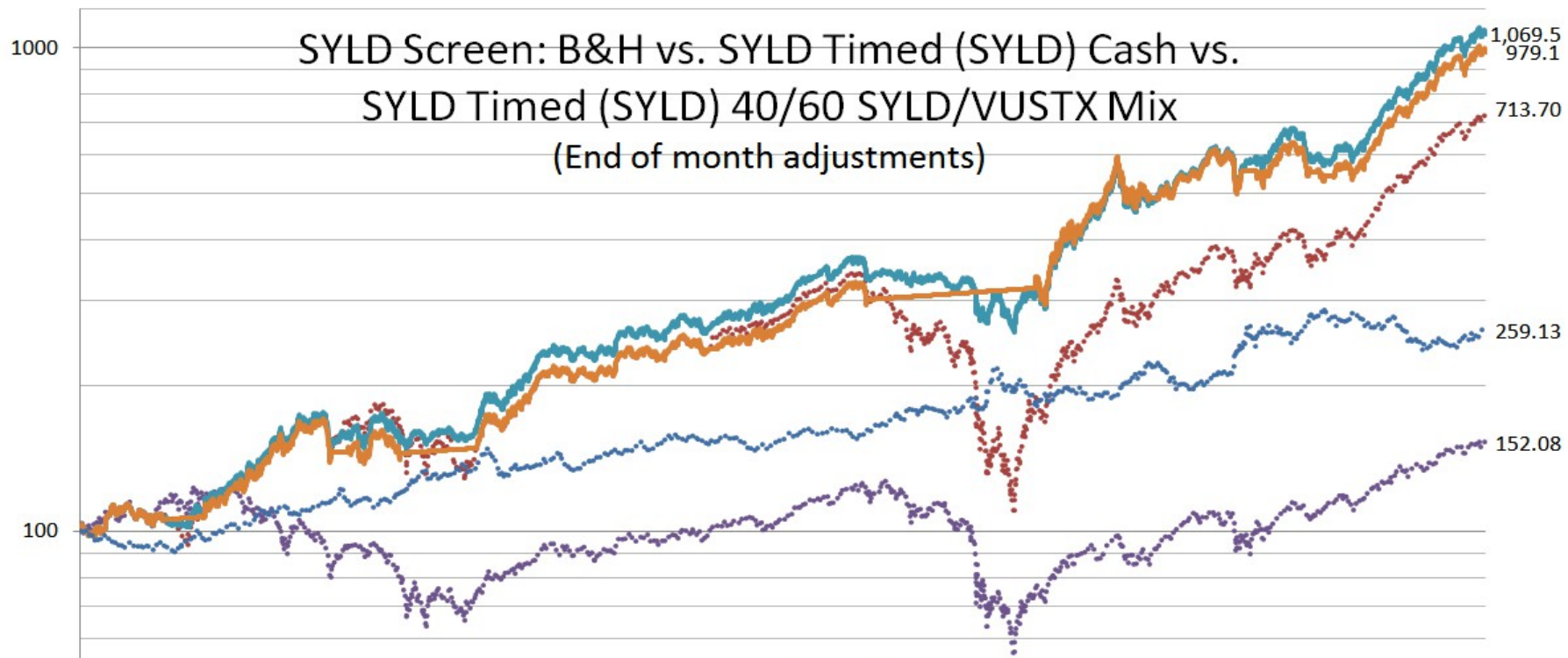
Legend:
- .... SYLD
- .... S&P 500
- ——— SYLD Timed(SYLD) 40/60 SYLD-VUSTX Mix)
- ——— SYLD Timed (SYLD)
- .... VUSTX Adj

Covers 1/99 - 4/14 (15.3 years), 3% MMF assumed	CAGR	MDD	SD	Sharpe
SPY	2.8%	57.0%	20.3%	-0.01
SYLD screen	13.7%	68.7%	21.7%	0.49
VUSTX	6.4%	18.4%	11.1%	0.31
SYLD Timed (SYLD)	16.1%	21.7%	13.5%	0.96
SYLD Timed(SYLD) 40/60 SYLD-VUSTX Mix	16.7%	30.2%	15.4%	0.89

The Max Sharpe & Min Var Mixes

- Another approach is to dynamically (monthly) optimize SYLD/VUSTX weights

- Max Sharpe optimizes weights to get the best Sharpe ratio

- Min Var optimizes weights to get the lowest volatility (variance)

- A trailing 60 trading day window is used for all calculations

- Weights are adjusted in 10% increments for SYLD & VUSTX
  - For example: 0/100, 10/90, 20/80/, …. 80/20, 90/10, 100/0
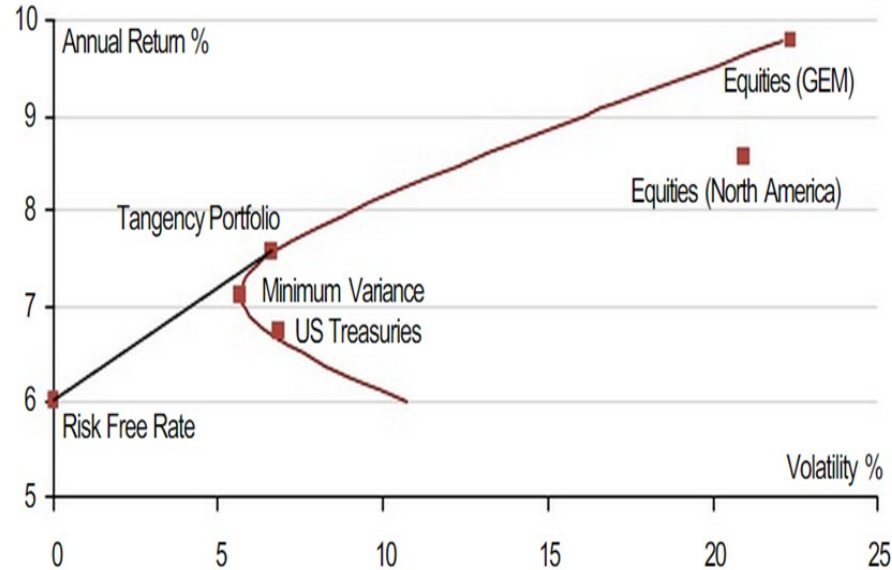
SYLD Screen: B&H vs. Max. Sharpe SYLD/VUSTX vs. Min. Variance SYLD/VUSTX
(End of month adjustments)
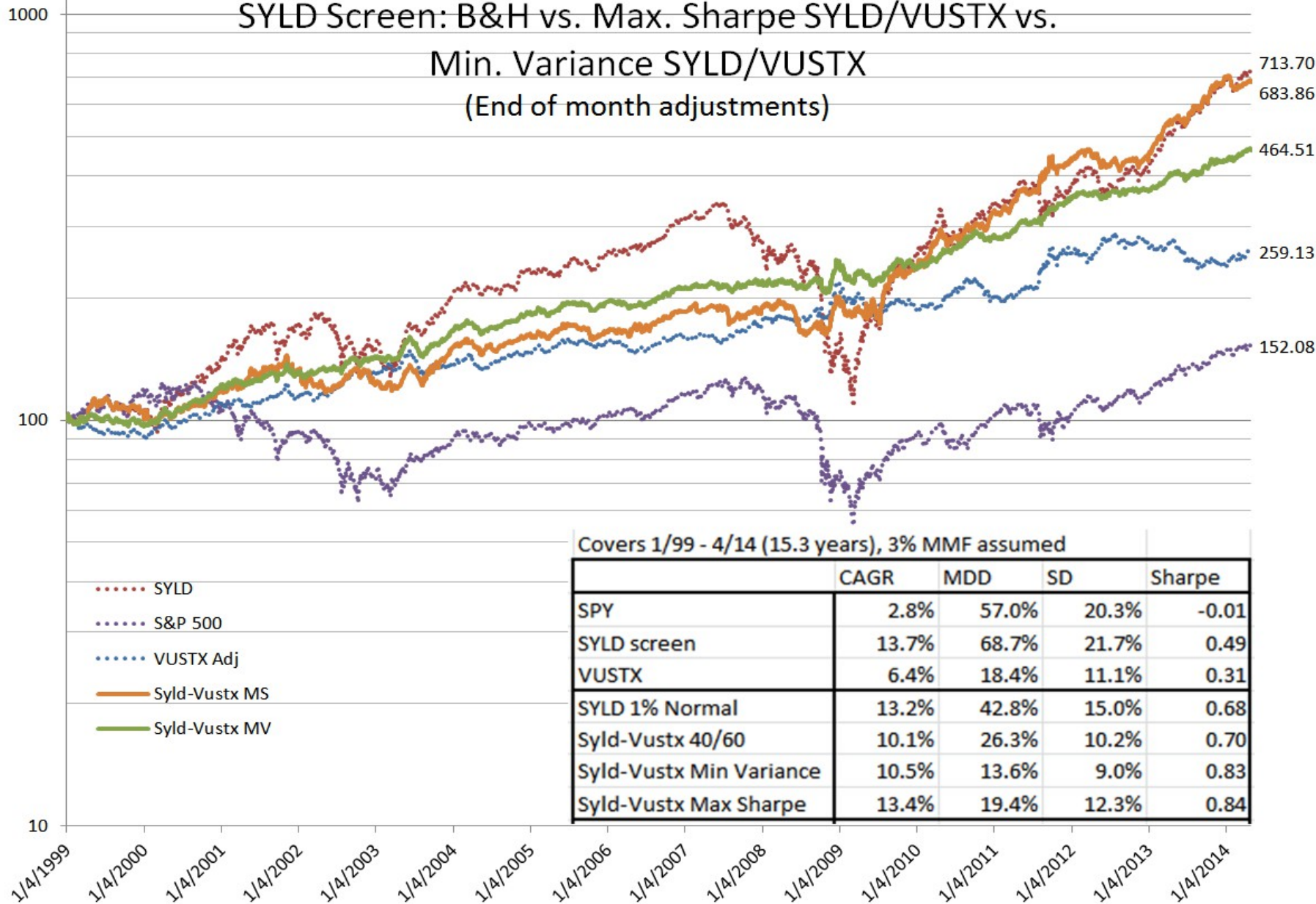
Legend:
- SYLD
- S&P 500
- VUSTX Adj
- Syld-Vustx MS
- Syld-Vustx MV

Values at right: 713.70, 683.86, 464.51, 259.13, 152.08

Covers 1/99 - 4/14 (15.3 years), 3% MMF assumed	CAGR	MDD	SD	Sharpe
SPY	2.8%	57.0%	20.3%	-0.01
SYLD screen	13.7%	68.7%	21.7%	0.49
VUSTX	6.4%	18.4%	11.1%	0.31
SYLD 1% Normal	13.2%	42.8%	15.0%	0.68
Syld-Vustx 40/60	10.1%	26.3%	10.2%	0.70
Syld-Vustx Min Variance	10.5%	13.6%	9.0%	0.83
Syld-Vustx Max Sharpe	13.4%	19.4%	12.3%	0.84

More "Fun with Volatility" Take-Aways

Covers 1/99 - 4/14 (15.3 years), 3% MMF assumed

	CAGR	MDD	SD	Sharpe
SPY	2.8%	57.0%	20.3%	-0.01
SYLD screen	13.7%	68.7%	21.7%	0.49
VUSTX	6.4%	18.4%	11.1%	0.31
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SYLD Timed(SYLD) 40/60				
SYLD-VUSTX Mix	16.7%	30.2%	15.4%	0.89

Event Take-Aways!

The Investment Pyramid
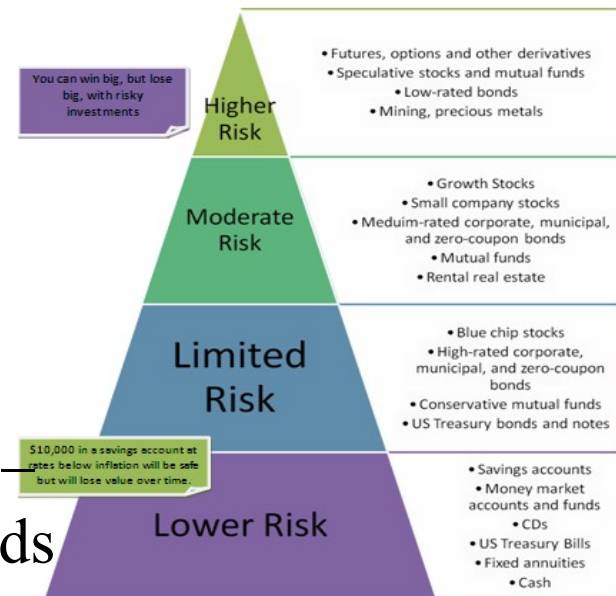
- Mixing negatively correlated assets helps reduce volatility with reasonable returns

- Pick the alg based on your risk/reward tolerance and trading activity level

- Can mix algs – e.g., Max Sharpe & Min Var – to get the risk reward curve that fits your needs

Extra "Stuff": Even More Screens!

- Sector Dogs
- Tiny Titans
- The Other Side of Value

Investable Universe
(Approximately 3,500 Stocks)

Market cap > Universe average, excluding Utilities

Top three-quarters by composited score of Value, Earnings Quality, and Financial Strength Composites

EBITDA / Enterprise Value > median
Value Composite > median

Top securities with the highest dividend yields — higher yielding securities are overweighted
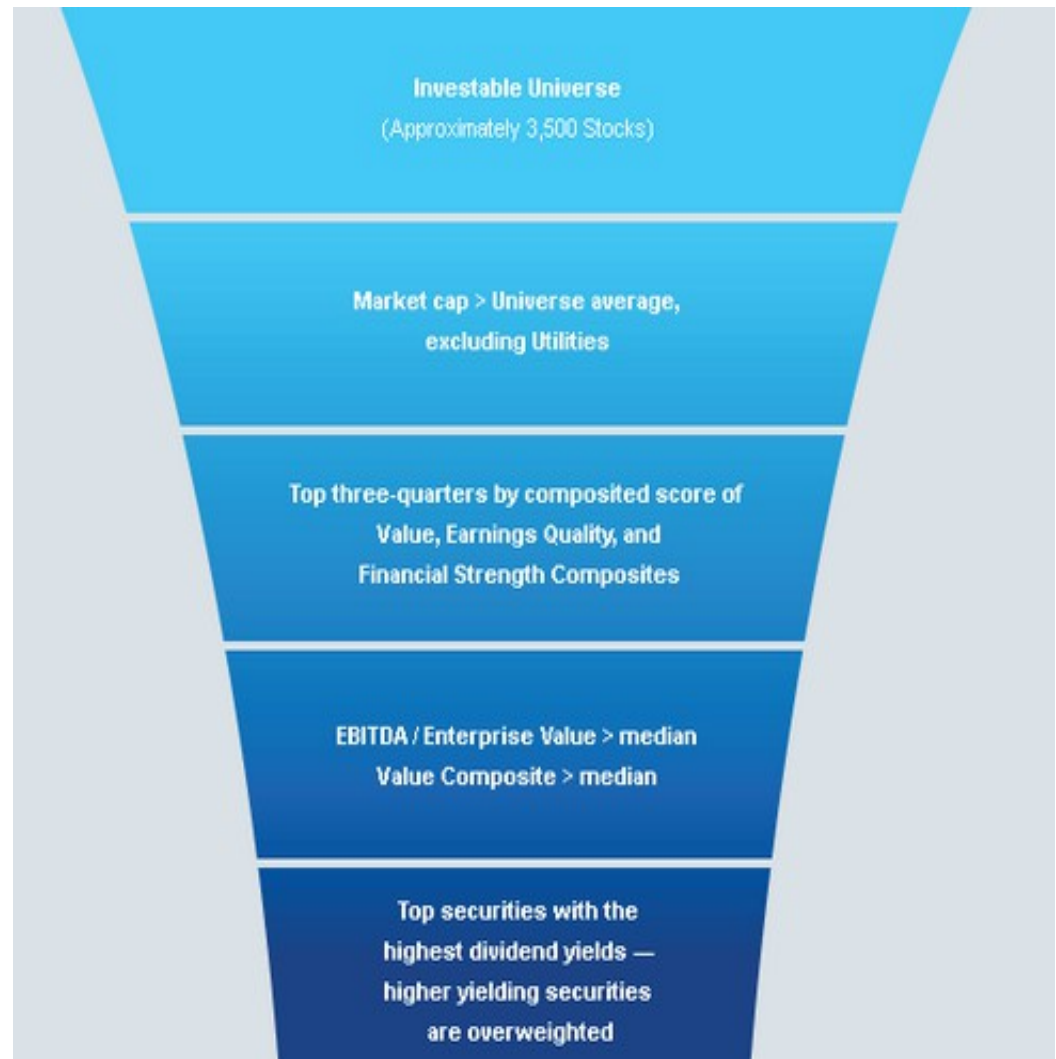
Sector Dog ETF

❑ **Well-Established Universe of Index Candidates**
- ❑ S&P 500 Serves as Universe for SDOGX
- ❑ Comprises of 50 Constituents
- ❑ Stocks Must Meet All Screens Needed to Qualify for the Leading Large-Cap US Equity Benchmark Index

❑ **Diversified by Sector**
- ❑ Five Stocks with Highest Dividend Yields in Each of the Ten Sectors Comprising the S&P 500 Selected for Inclusion in SDOGX, Assuring Diversification Across All Sectors

❑ **Pure Yield – No Qualitative Screens**
- ❑ SDOGX Does Not Include Any Qualitative Screens, such as Dividend Growth, Dividend Consistency or Coverage Ratio
- ❑ Based Entirely on Dividend Yield, Making SDOGX the Only Pure Play Dividend Index Available

❑ **Entirely Rules-Based**
- ❑ Depends on a Clearly Defined Rules-Based Methodology
- ❑ No Discretion is Exercised in Compiling the Index
- ❑ Pre-Defined Screening Protocol Assures a Consistent, Transparent and Arms-Length Compilation Process

> **The S-Network Sector Dividend Dogs Index Offers the First Pure Play, Rules-Based High Dividend Index.**

S-NET
SECTOR DIVIDEND DOGS
I N D E X

Sector Dog ETF

S-Network Sector Dividend Dogs Total Return Index vs. Benchmarks
(12/31/1999 - 12/31/2012)

— S-Network Sector Dividend Dogs Total Return Index
— Dow Jones Select Dividend Total Return Index
— S&P High Yield Dividend Aristocrat Total Return Index
— S&P 500 Total Return Index
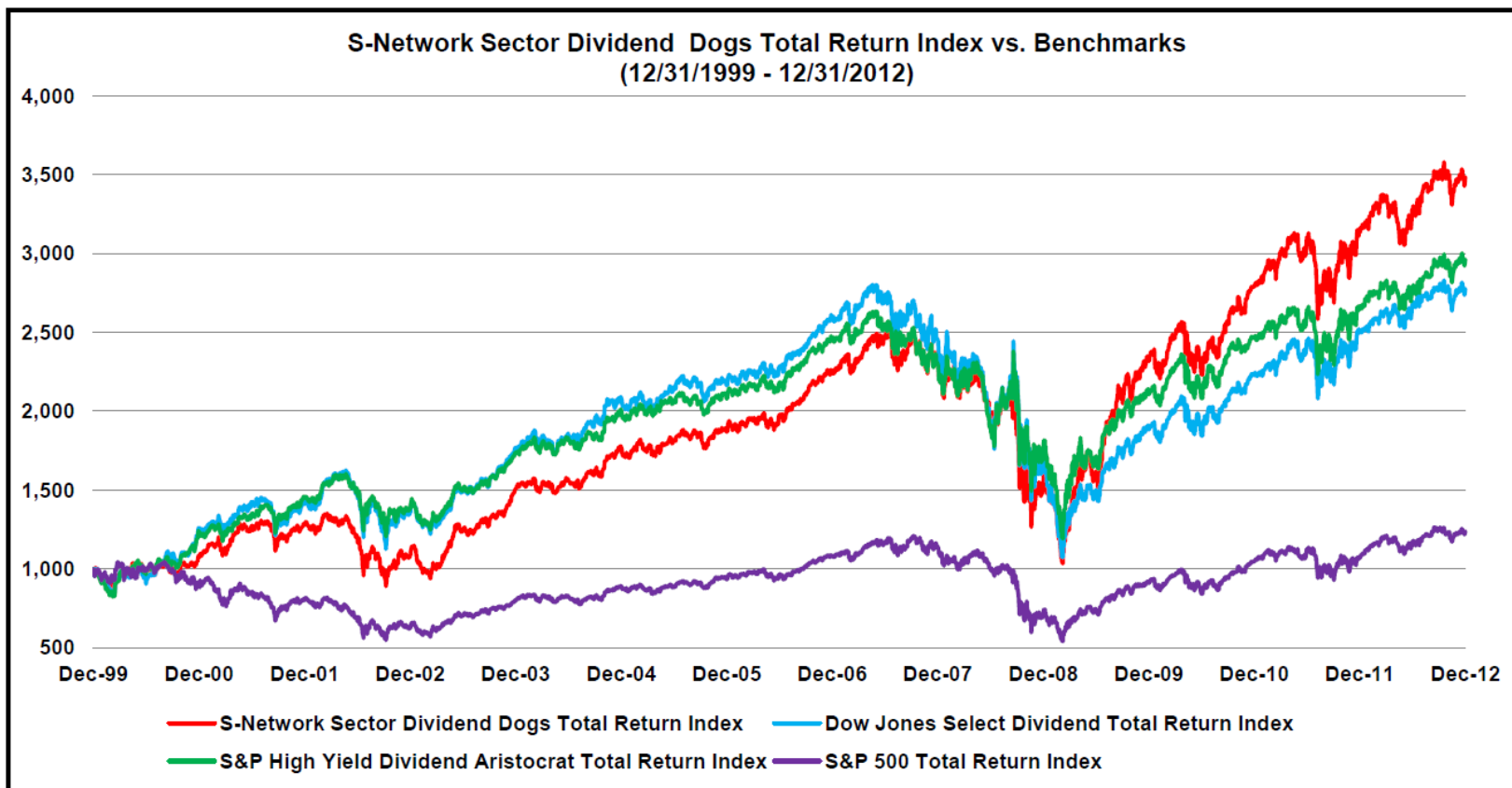
Source: S-Network, as at 12/31/2012

The S-Network Sector Dividend Dogs Index Offers Consistent Performance Over Time, Regularly Outperforming the S&P 500 and Other High Dividend Indexes.

S★NET
SECTOR DIVIDEND DOGS
I N D E X

Sector SYLD Dog??

- SDOGX is a pure dividend yield strategy equally weighted across all S&P sectors

- Would a "Shareholder Yield Sector Dog" approach work better?
    - Would find the top 5 stocks in each S&P sector by SYLD and not DY

- The results of the back testing this scheme are shown on the following slides…

Sector SYLD Dog

- Terms: (some, not all)
  - forder: orders all stocks in each **SECTOR** and takes the top 5

Sector SYLD Dog: Current Stocks

Sector SYLD Dog

| | About | Notes | Main Settings | Rules | Hedge Rules | **Results** | Backtest | Advanced Backtest |

As Of 10/9/2013   End Date 10/16/2013   Today   Run   Quick Stats

Report: Screen Factors   **Screen Factors**   Pre-Defined   Saved   Create New ...

Rank data as of 10/05/13, End Date: 10/16/13, Report: Screen Factors

No	Ticker	Name	Start	End	Pct	MktCap	@PydnYlc	@BuyBkYl	@ShrHldr	DbtTotPYQ	DbtTotQ
1	SLM[5d][1y]	SLM Corp	24.72	25.17	1.82	10,930.90	25.19	6.15	33.73	179,969.00	152,437.00
2	AIG[5d][1y]	American International Group Inc	49.58	50.02	0.89	73,123.52	4.49	15.94	21.24	75,442.00	42,614.00
3	STX[5d][1y]	Seagate Technology Plc	46.04	46.98	2.04	16,487.38	0.05	13.58	16.95	2,863.00	2,777.00
4	X[5d][1y]	United States Steel Corp	21.9	23.52	7.4	3,109.95	-0.41	15.79	16.31	3,806.00	3,933.00
5	CHK[5d][1y]	Chesapeake Energy Corp	26.41	26.5	0.34	17,665.72	0.83	13.32	15.47	14,528.00	13,057.00
6	IPG[5d][1y]	Interpublic Group of Companies I	16.68	16.86	1.08	7,172.35	-0.87	13.29	14.19	1,633.40	2,259.40
7	DNB[5d][1y]	Dun & Bradstreet Corp (The)	103.13	103.64	0.49	4,018.52	-0.98	12.98	13.54	1,013.60	1,408.10
8	IGT[5d][1y]	International Game Technology	18.59	18.46	-0.7	4,956.61	0.57	9.75	12.43	1,969.80	1,685.20
9	WIN[5d][1y]	Windstream Holdings Inc	8.4	8.41	0.18	4,754.26	-0.18	-0.24	12.05	8,860.10	8,944.70
10	GT[5d][1y]	Goodyear Tire & Rubber Co	22.45	22.34	-0.49	5,660.46	-1.52	11.74	11.1	5,670.00	6,529.00
11	FLS[5d][1y]	Flowserve Corp.	62.04	62.41	0.6	8,608.11	-0.38	10.55	11.07	796.78	1,127.08
12	DTV[5d][1y]	DIRECTV	60.15	60.87	1.2	32,764.40	-0.87	11.91	11.04	15,962.00	18,813.00
13	T[5d][1y]	AT&T Inc	34.15	33.71	-1.29	180,064.08	-0.59	5.89	10.63	64,534.00	75,173.00
14	ATI[5d][1y]	Allegheny Technologies Inc	30.68	32.03	4.4	3,333.99	0.08	8.15	10.56	1,501.40	1,473.90
15	ORLY[5d][1y]	O'Reilly Automotive Inc	125.94	129.08	2.49	13,833.00	-0.43	10.84	10.41	797.41	1,395.99
16	FITB[5d][1y]	Fifth Third Bancorp	18.14	18.13	-0.06	15,488.31	3.39	4.34	10.37	14,939.00	9,688.00
17	STJ[5d][1y]	St. Jude Medical Inc.	54.64	55.38	1.35	15,999.46	-0.41	8.82	10.19	2,963.00	3,613.00
18	LLL[5d][1y]	L-3 Communications Holdings Inc	93.56	93.71	0.16	8,300.04	0.61	7.11	10.08	4,155.00	3,650.00
19	ABC[5d][1y]	AmerisourceBergen Corp	62.43	62.81	0.61	14,417.76	0.33	8.27	9.94	1,875.97	1,396.44
20	WU[5d][1y]	Western Union Co	18.38	18.52	0.76	10,362.80	-0.04	7.08	9.7	3,673.10	3,717.30
21	FTR[5d][1y]	Frontier Communications Corp	4.31	4.37	1.37	4,282.24	0.3	-0.14	9.51	8,287.09	8,158.83
22	BAC[5d][1y]	Bank of America Corp	14.23	14.24	0.07	150,940.53	5.65	3.47	9.4	626,781.00	541,559.00
23	YHOO[5d][1y]	Yahoo Inc	33.87	33.38	-1.45	37,159.45	0	9.3	9.3	0	0
24	LM[5d][1y]	Legg Mason Inc	34.42	35.11	2	4,214.86	0.42	7.31	9.26	1,426.36	1,248.64
25	XRX[5d][1y]	Xerox Corp	10.65	10.56	-0.85	12,978.57	0.78	6.28	9.24	9,160.00	8,149.00

Sector SYLD Dog: Current Stocks

Sector SYLD Dog

	About	Notes	Main Settings	Rules	Hedge Rules	**Results**	Backtest	Advanced Backtest

As Of 10/9/2013   End Date 10/16/2013 Today ▾   **Run** **Quick Stats**

Report Screen Factors ▾   **Screen Factors** | Pre-Defined | Saved | Create New ...

No	Ticker	Name	Start	End	Pct	MktCap	@PydnYlc	@BuyBkYl	@ShrHldr	DbtTotPYQ	DbtTotQ
26	CCE[5d][1y]	Coca-Cola Enterprises Inc	40.56	40.5	-0.15	10,747.07	-0.5	6.56	8.04	3,157.00	3,699.00
27	WLP[5d][1y]	WellPoint Inc	88.43	87.97	-0.52	26,105.96	-1.41	7.64	7.94	11,149.30	14,841.10
28	CTL[5d][1y]	CenturyLink Inc	33.34	32.53	-2.43	18,851.32	0.53	0.12	7.58	21,585.00	20,585.00
29	RAI[5d][1y]	Reynolds American Inc	50.28	50.43	0.3	26,832.05	-0.61	3.06	7.56	3,943.00	5,582.00
30	WDC[5d][1y]	Western Digital Corp	65.53	68.32	4.26	15,412.11	0.15	5.77	7.46	2,185.00	1,955.00
31	LO[5d][1y]	Lorillard Inc	46.02	46.5	1.04	16,848.75	-0.57	3.08	7.4	2,610.00	3,571.00
32	MNST[5d][1y]	Monster Beverage Corp	53.85	55.56	3.18	8,681.22	0	7.37	7.37	0	0
33	PM[5d][1y]	Philip Morris International Inc	86.16	85.5	-0.77	141,244.95	-0.33	3.23	7.22	20,802.00	25,499.00
34	EIX[5d][1y]	Edison International	47.71	46.8	-1.91	15,101.34	2.69	1.5	7.1	14,550.00	10,483.00
35	NOC[5d][1y]	Northrop Grumman Corp	97.1	97.35	0.26	21,538.44	-0.93	5.38	7.07	3,937.00	5,933.00
36	SWK[5d][1y]	Stanley Black & Decker Inc	90.25	89.51	-0.82	14,589.51	-0.54	5.32	6.97	3,930.00	4,718.40
37	PFE[5d][1y]	Pfizer Inc	28.77	29.16	1.36	191,988.69	0.1	3.56	6.96	38,571.00	36,746.00
38	XOM[5d][1y]	Exxon Mobil Corp	86.04	86.79	0.87	379,980.62	-0.1	3.69	6.51	15,581.00	19,357.00
39	LLY[5d][1y]	Eli Lilly and Co	49.15	48.81	-0.69	52,087.75	0.04	2.4	6.49	5,509.30	5,314.00
40	PPG[5d][1y]	PPG Industries Inc.	164.73	165.48	0.46	24,422.98	0.09	4.71	6.23	3,611.00	3,379.00
41	COP[5d][1y]	ConocoPhillips	71.08	71.89	1.14	86,796.80	0.23	1.77	5.89	26,961.00	24,922.00
42	TE[5d][1y]	TECO Energy Inc.	16.88	16.68	-1.18	3,585.45	0.59	-0.19	5.73	3,182.70	2,972.70
43	AEE[5d][1y]	Ameren Corp	35.35	35.09	-0.74	8,379.40	0.84	0	5.47	6,887.00	6,183.00
44	AVY[5d][1y]	Avery Dennison Corp	43.37	42.83	-1.25	4,239.74	-0.04	2.68	5.34	1,374.70	1,389.60
45	SO[5d][1y]	Southern Co (The)	41.57	40.85	-1.73	35,532.89	-0.46	0.57	5.1	22,137.00	23,765.00
46	MPC[5d][1y]	Marathon Petroleum Corp	65.31	68.44	4.79	20,677.91	-0.04	2.35	4.89	3,335.00	3,410.00
47	BLL[5d][1y]	Ball Corp	44.76	44.78	0.04	6,593.00	-0.56	4.19	4.78	3,462.70	3,831.10
48	CNP[5d][1y]	CenterPoint Energy Inc.	24.34	24.04	-1.23	10,342.29	1.35	-0.01	4.78	10,001.00	8,604.00
49	VZ[5d][1y]	Verizon Communications Inc	46.86	46.32	-1.15	134,800.20	0.2	-0.49	4.21	52,391.00	49,752.00
50	DNR[5d][1y]	Denbury Resources Inc.	18.25	18.45	1.1	6,969.58	-0.37	4.56	4.2	2,978.24	3,233.00

Sector SYLD Dog: Back-Test

Sector SYLD Dog

| | About | Notes | Main Settings | Rules | Hedge Rules | Results | **Backtest** | Advanced Backtest |

Price	Next Open ▼	Start Date - End Date	◀◀ ◀ 1/2/1999 - 10/9/2013 ▶ ▶▶
Rank Tolerance	0.0	Max Pos % (0-100)	0.0	1Y 5Y 10Y Max Get More Data
Slippage %	0.0	Carry Cost %	0.0	Rebalance Frequency	1 Year ▼
Long Weight %	100.0		Save Log ☐

Run Backtest

Statistics

	Total Return	Annualized Return	Max Drawdown	Sharpe Ratio	Sortino Ratio	Standard Deviation	Correlation with Benchmark	R-Squared	Beta	Alpha
Screen	397.05%	11.47%	-60.62%	0.34	0.44	22.01%	0.79	0.63	0.71	8.51%
S&P 500	34.80%	2.04%	-57.00%	-0.08	-0.11	24.75%	-	-	-	-

©Portfolio123.com

Screen — S&P 500 ▣ Turnover % ▢ Number of Positions
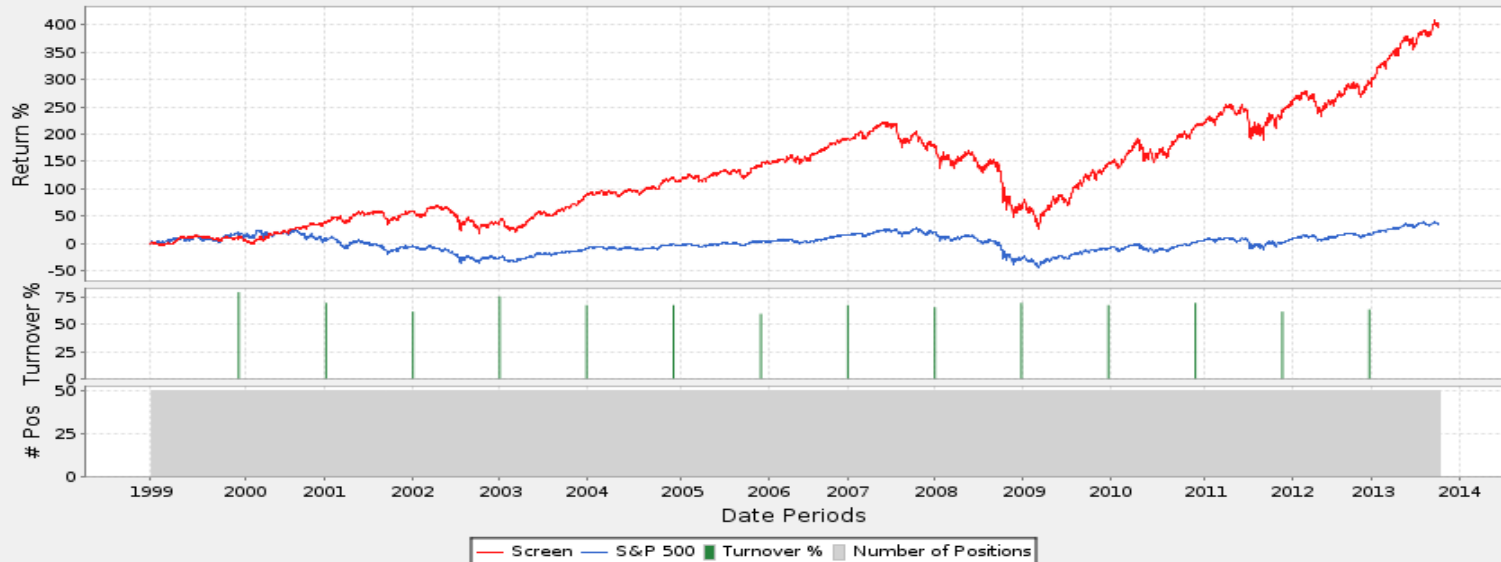
Sector SYLD Dog vs. Random 25

Annualized Return

Sector SYLD Dog:
11.5% CAGR
+2 SD, ~97%

.0013 .0214 .1359 .3413 .3413 .0214 .0013

-4 -3 -2 -1 0 2 3 4

5.0% 6.6% 8.2% 9% 11.5% 13.1%
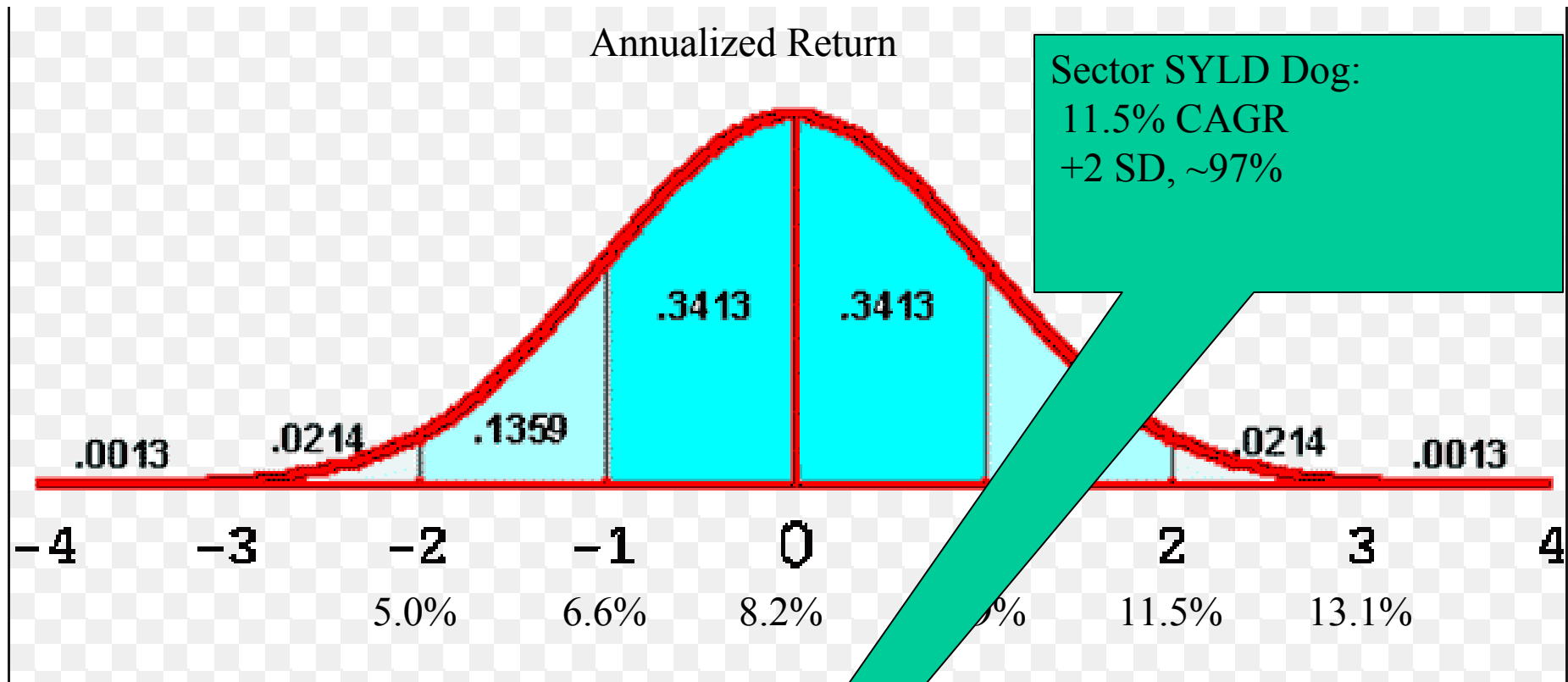
Sector SYLD Dog Take-Aways

	Total Return	Annualized Return	Max Drawdown	Sharpe Ratio	Sortino Ratio	Standard Deviation	Correl. To Benchmark	R-Squared	Beta	Alpha
S&P500 MktCap	34.7%	2.0%	-57.0%	-0.08	-0.11	24.8%	1.0	1.0	1.0	0%
S&P500 Eql Wght	239.3%	8.6%	-57.8%	0.19	0.25	23.9%	0.82	0.68	0.79	6.0%
SYDOG	397.05%	11.47%	-60.62%	0.34	0.44	22.01%	0.79	0.63	0.71	8.51%

- The SYLD Dog screen does well compared to our two benchmarks
  - Good CAGR and Sharpe, significantly higher MDD and Std Dev
  - Note that SYLD Dog has lower SD than SYLD – overall the same Sharpe ratio

- SYLD Dog beats SDOGX ETF by ~1.4% over the back-test period
  - Ran a dividend yield screen (not shown) – DY screen at the 87th percentile (1+ SD)
  - Shareholder Yield beats Dividend Yield

Event Take-Aways!

Dogs of the Dow AAII Screen

Dogs of the Dow		S&P 500
YTD Return:	18.5%	12.6%
Five Year Return:	6.4%	4.6%
Ten Year Return:	2.5%	5.1%
Inception:	2.4%	3.3%

Legend:
- Dogs of the Dow
- Dogs of the Dow: Low Priced 5
- Dow Jones 30

Why does this fail?? Probably has too small a universe to choose from…

Extra "Stuff": Even More Screens!

- Sector Dogs
- Tiny Titans
- The Other Side of Value

Investable Universe
(Approximately 3,500 Stocks)

Market cap > Universe average, excluding Utilities

Top three-quarters by composited score of Value, Earnings Quality, and Financial Strength Composites

EBITDA / Enterprise Value > median
Value Composite > median

Top securities with the highest dividend yields — higher yielding securities are overweighted
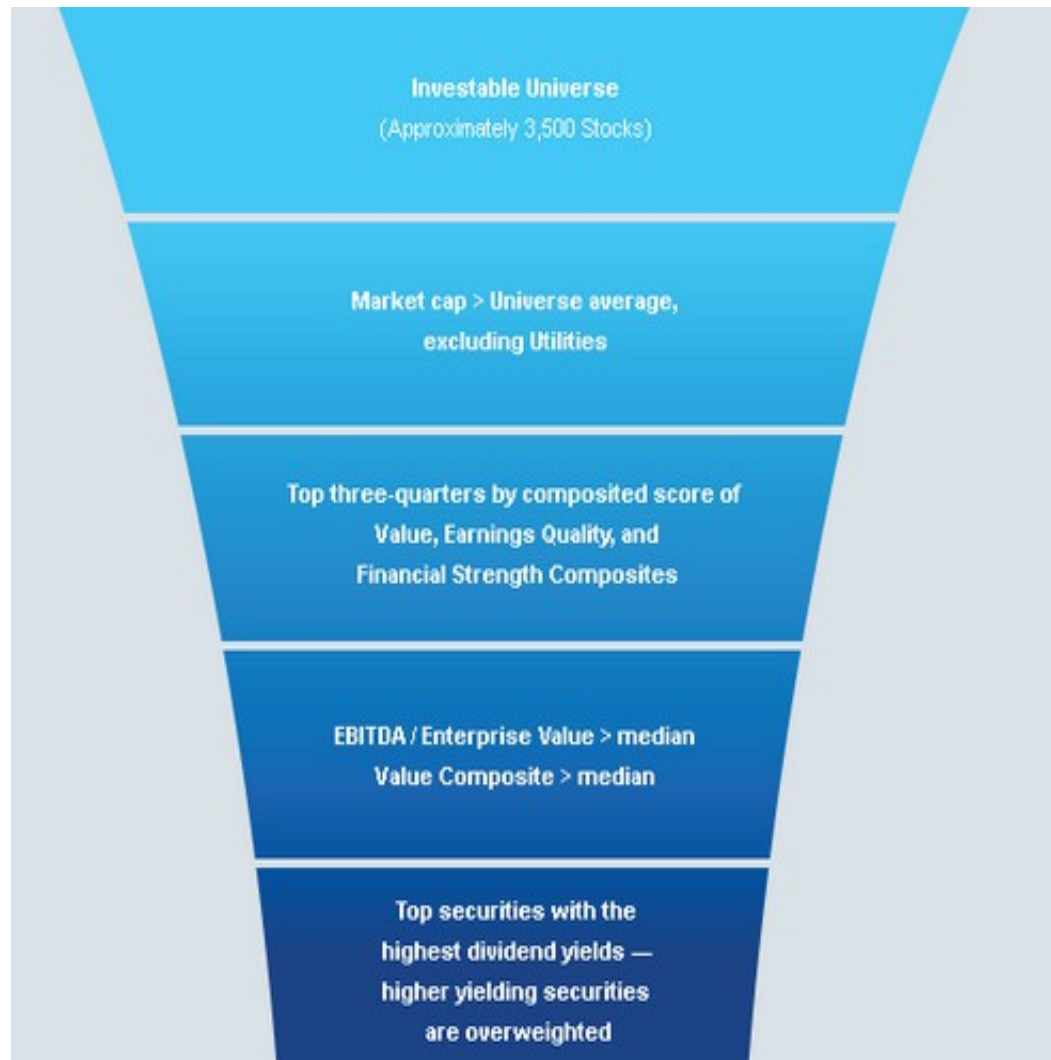
Tiny Titans: Background

- Tiny Titans ranks highly in the all-time winners of AAII screens
  - Great performance
  - A very simple screen, easily understandable
  - http://www.aaii.com/stock-screens/screendata/OShauTinyTitans for details

- AAII back test methodology may NOT be what you do in reality
  - Limited liquidity check – slippage, spread costs increase
  - May have 0-100 stocks pass the screen – not many people would invest this way
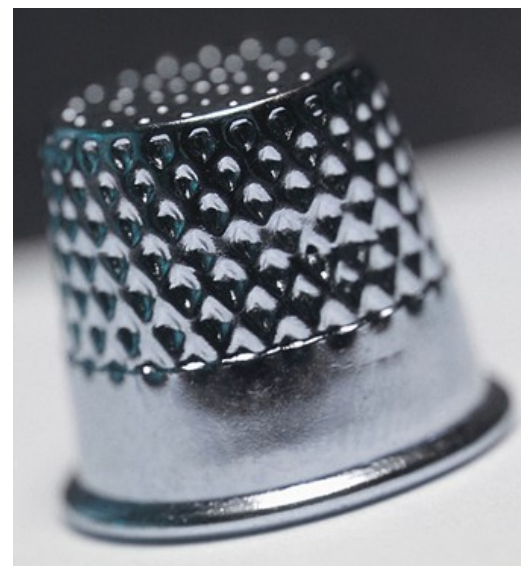
Tiny Titans Performance @ AAII

Legend:
- O'Shaughnessy: All Cap
- O'Shaughnessy: Growth Market Leaders
- O'Shaughnessy: Small Cap Growth & Value
- O'Shaughnessy: Tiny Titans
- S&P 500

	O'Shaughnessy: Tiny Titans	S&P 500
YTD Return:	32.7%	17.9%
Five Year Return:	12%	7.6%
Ten Year Return:	12%	5.4%
Inception:	25.1%	3.6%
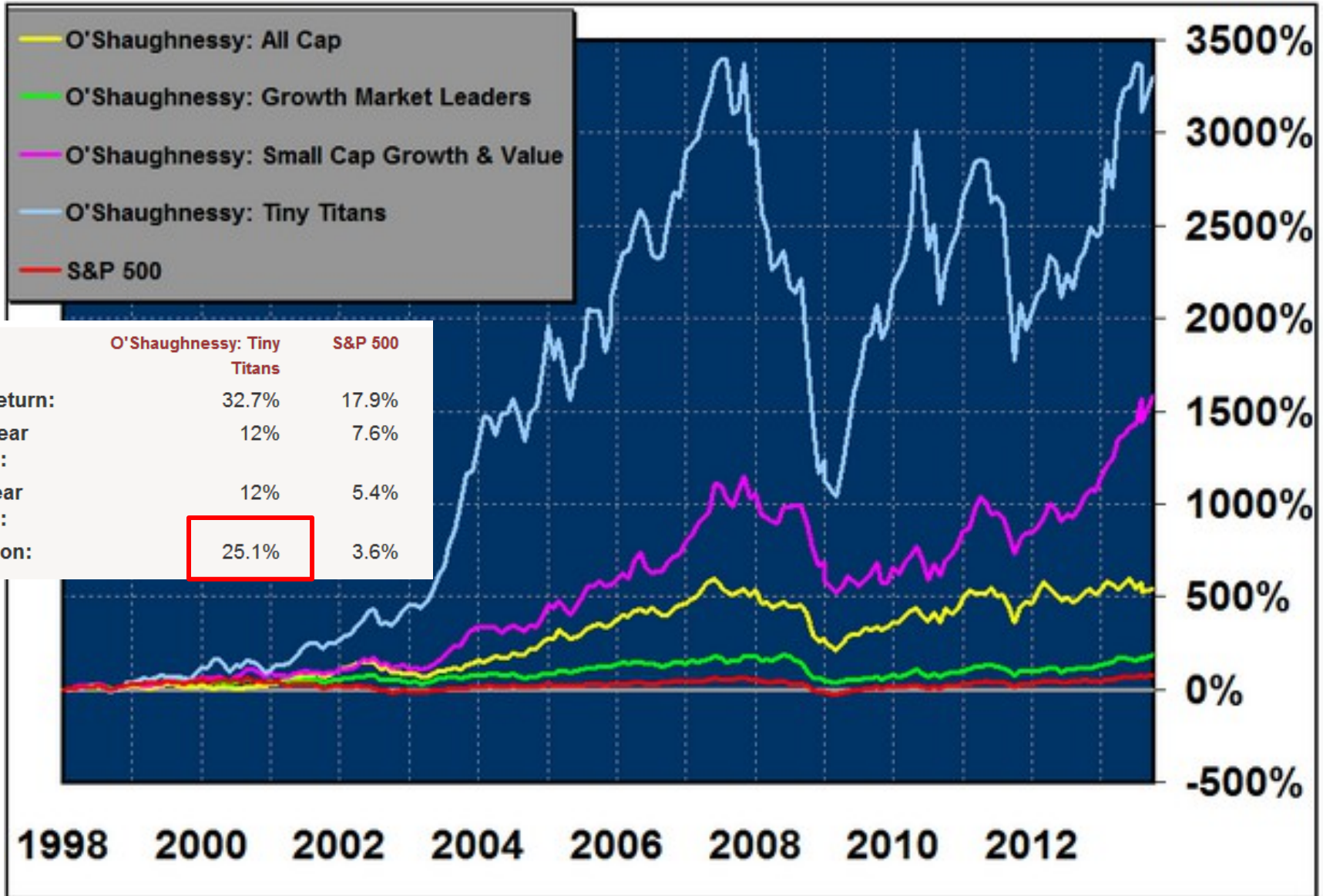
Tiny Titans: Some Issues

- The problems with the AAII Tiny Titans scheme include:
  - Number of stocks: Can buy 0 to 100+
  - No cash: You can be 100% invested in 1 or a handful of stocks
  - Liquidity: Other than "No OTC", >$25M Market Capitalization, there is no liquidity check
  - Trading costs: 12 round-trips/year (can't do much here)
- Liquidity: When dealing with stocks this small must be aware of unavoidable costs

Slippage, Spread Costs

		(CRR cost in %/year)							
Rotation period	Round trip slippage (BP)								
	10	20	30	40	50	60	70	80	90	100
4w	1.3%	2.6%	3.8%	5.1%	6.3%	7.5%	8.7%	9.9%	11.1%	12.2%
1M	1.2%	2.4%	3.5%	4.7%	5.8%	7.0%	8.1%	9.2%	10.3%	11.4%
2M	0.6%	1.2%	1.8%	2.4%	3.0%	3.5%	4.1%	4.7%	5.3%	5.9%
3M	0.4%	0.8%	1.2%	1.6%	2.0%	2.4%	2.8%	3.2%	3.6%	3.9%

Hi Vol ETF (Spy)   Reasonable small cap range   Lo Vol Stock (OTC)
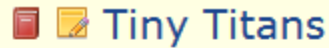
Vol = Volume

Tiny Titans: Screen

📕 📝 Tiny Titans

	About	Notes	**Main Settings**	Rules	Hedge Rules	Results	Backtest	Advanced Backtest

Universe	All Stocks	Benchmark	Russell2000
Method	Long	Max No. Stocks (0 for all)	25
Ranking	Quick Rank	*NOTE: if no ranking is used, the order of results is random*	
Formula	Pr2SalesTTM	Ranking Method	Lower is Better

📕 📝 Tiny Titans -AAII Seminar

	About	Notes	Main Settings	**Rules**	Hedge Rules	Results	Backtest	Advanced Backtest

❓ Show	🪄 Add Wizard Rule	📝 Add Free Form	Clear	As Of 10/9/2013 📅 📲	Run	Totals ↻	9137

	Rule	Count
⊕ 🪄 ✖ 🟢	Market Capitalization - Less Than$ 500 Mill.	4049
⊕ 🪄 ✖ 🟢 and	Market Capitalization - Greater Than$ 25 Mill.	2279
⊕ 🪄 ✖ 🟢 and	Price-Sales - Less Than 1	670
⊕ 🪄 ✖ 🟢 and	Daily $ Amount, 20 Day Average - Greater Than$ 1000K	174
⊕ 📝 ✖ 🟢 and	Country("USA")	153
⊕ 🪄 ✖ 🟢 and	Is not Over-the-counter (OTC) - True	152
⊕ 🪄 ✖ 🟢 and	1 Year Price % Change - Best in the Market, highest 15%	30

Tiny Titans: Current Stocks

	About	Notes	Main Settings	Rules	Hedge Rules	Results	Backtest	Advanced Backtest

As Of	10/9/2013		End Date	10/17/2013	Today			Run	Quick Stats
Report	Screen Factors		Screen Factors	Pre-Defined	Saved	Create New ...			

Rank data as of 10/05/13, Start Date: 10/10/13, End Date: 10/17/13, Report: Screen Factors

No	Ticker	Name	Start	End	Pct	Rank	MktCap	Pr2SalesTTM
1	YRCW[5d][1y]	YRC Worldwide Inc	16.69	15.12	-9.41	96.8	162.9	0.03
2	TOWR[5d][1y]	Tower International Inc	19.23	19.52	1.51	92.86	412.81	0.2
3	LEE[5d][1y]	Lee Enterprises Inc	3.03	2.99	-1.32	92.16	157.69	0.23
4	IDT[5d][1y]	IDT Corp	18.01	19.72	9.49	91.12	438.75	0.27
5	SRI[5d][1y]	Stoneridge Inc.	12.11	12.71	4.95	89.52	324.18	0.34
6	PRSC[5d][1y]	Providence Service Corp (The)	28.02	28.44	1.5	89.37	382.72	0.35
7	MTEX[5d][1y]	Mannatech Inc	23.3	23.52	0.94	89.02	61.2	0.36
8	VVTV[5d][1y]	ValueVision Media Inc	4.68	4.97	6.2	88.55	229.97	0.37
9	CCIX[5d][1y]	Coleman Cable Inc	21.33	20.78	-2.58	88.23	365.92	0.39
10	PFSW[5d][1y]	PFSweb Inc	6.74	7.03	4.3	88.18	113.38	0.39
11	VOXX[5d][1y]	VOXX International Corp	14.4	13.65	-5.21	87.95	302.51	0.39
12	DCO[5d][1y]	Ducommun Inc	30.24	29.97	-0.89	87.63	300.08	0.41
13	DTLK[5d][1y]	Datalink Corp	13.47	13.78	2.3	86.9	247.84	0.44
14	MPAA[5d][1y]	Motorcar Parts of America Inc	13.12	13.87	5.72	85.43	185.1	0.51
15	CBK[5d][1y]	Christopher & Banks Corp.	6.16	6.43	4.38	84.07	254.84	0.57
16	BWEN[5d][1y]	Broadwind Energy Inc	8.84	10.12	14.48	83.4	118.13	0.6
17	EGLE[5d][1y]	Eagle Bulk Shipping Inc	7.11	7.31	2.81	82.76	126.43	0.62
18	STXS[5d][1y]	Stereotaxis Inc	3.27	3.18	-2.78	82.22	27.7	0.65
19	UFI[5d][1y]	UNIFI INC.	23.54	23.45	-0.38	81.96	441.91	0.67
20	BKR^13[5d][1y]	Michael Baker Corp	40.48	40.47	-0.02	81.66	391.51	0.68
21	CKEC[5d][1y]	Carmike Cinemas Inc	21.95	22.15	0.91	81.27	395.6	0.7
22	AIQ[5d][1y]	Alliance HealthCare Services In	27.98	29.32	4.79	81.09	316.62	0.7
23	NNBR[5d][1y]	NN Inc	15.97	16.17	1.25	80.04	272.72	0.76
24	DEST[5d][1y]	Destination Maternity Corp	30.15	30.9	2.49	79.73	422.11	0.78
25	RSOL[5d][1y]	Real Goods Solar Inc	2.57	2.77	7.78	79.68	76.3	0.78

Tiny Titans: Back-Test

Tiny Titans -AAII Seminar

| About | Notes | Main Settings | Rules | Hedge Rules | Results | **Backtest** | Advanced Backtest |

Price	Next Open		Start Date - End Date	◀◀ ◀ 1/2/1999 - 10/9/2013 ▶ ▶▶
Rank Tolerance	0.0	Max Pos % (0-100) 7.0		**1Y 5Y 10Y Max Get More Data**
Slippage %	0.0	Carry Cost % 0.0	Rebalance Frequency	4 Weeks
Long Weight %	100.0		Save Log ☐	

Run Backtest

Statistics

	Total Return	Annualized Return	Max Drawdown	Sharpe Ratio	Sortino Ratio	Standard Deviation	Correlation with Benchmark	R-Squared	Beta	Alpha
Screen	2,365.00%	24.25%	-63.79%	0.58	0.79	34.57%	0.76	0.57	0.89	17.43%
Russell2000	148.84%	6.37%	-59.37%	0.08	0.11	29.25%	-	-	-	-

©Portfolio123.com
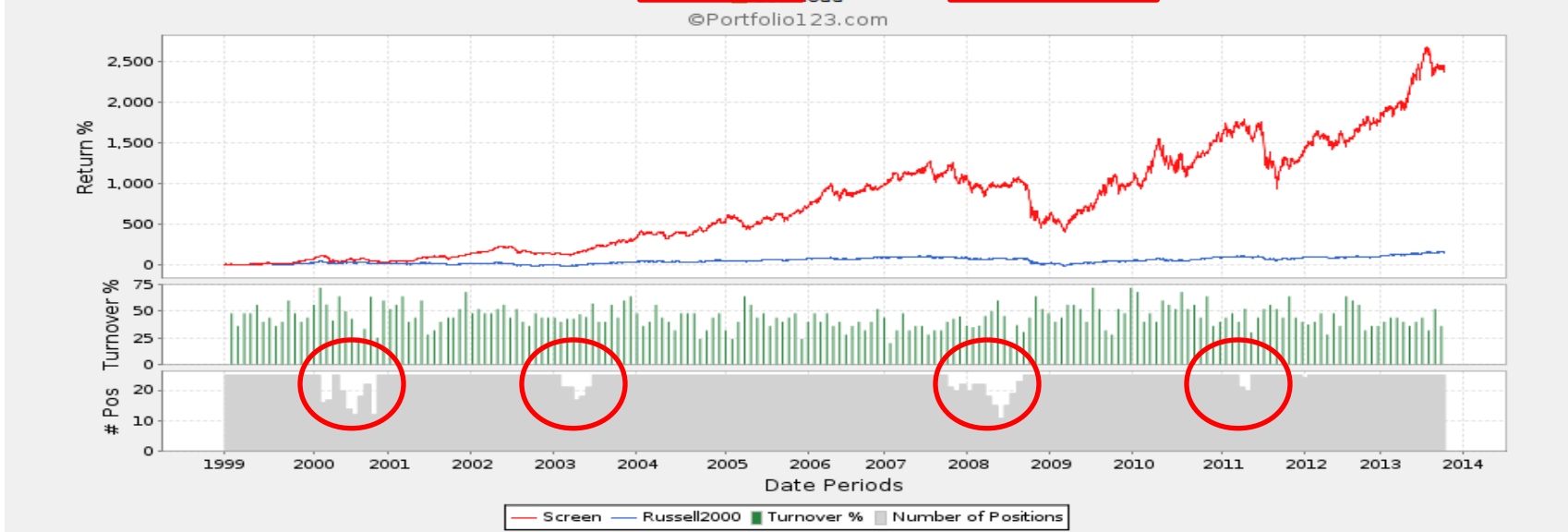
Tiny Titans vs. All Stocks: Fair Comparison

- While the R2000 is a useful benchmark comparison we will look at two others as well

  - "All stocks" - with the TT universe screen elements - rebalanced every 4 weeks. This captures the small cap, low price and value effects

  - Comparison with picking 25 stocks from "All stocks" - with the TT universe screen elements - every 4 weeks. This lets us do some statistical test to see how well the screen is doing
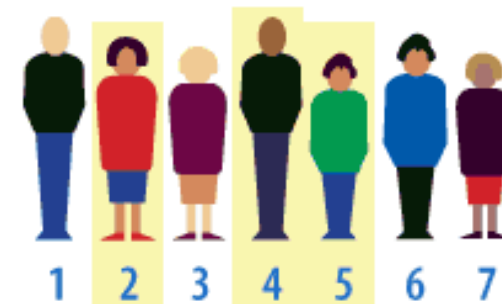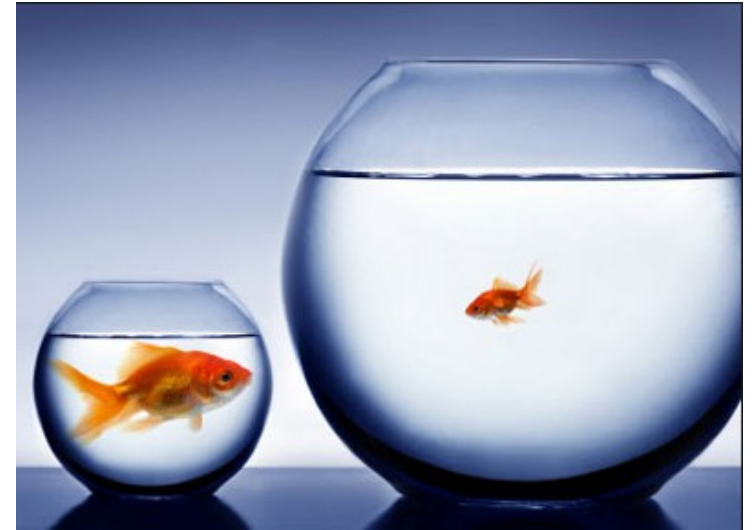
Assign Numbers, Auto-Generate Random Selections

Tiny Titans vs. All Stocks

📕 📝 Tiny Titans -AAII Seminar

| About | Notes | **Main Settings** | Rules | Hedge Rules | Results | Backtest | Advanced Backtest |

Universe	All Stocks ▼	Benchmark	Russell2000 ▼
Method	Long ▼	Max No. Stocks (0 for all)	0
Ranking	Quick Rank ▼	*NOTE: if no ranking is used, the order of results is random*	
Formula	random	Ranking Method	Lower is Better ▼

📕 📝 Tiny Titans -AAII Seminar

| About | Notes | Main Settings | **Rules** | Hedge Rules | Results | Backtest | Advanced Backtest |

| ❓ Show | 🪄 Add Wizard Rule | 📝 Add Free Form | Clear | | As Of 10/9/2013 📅 📥 | Run | Totals ⟳ | 9137 |

⊕ 🪄 ✖ 🟢	Market Capitalization - Less Than$ 500 Mill.	4049
⊕ 🪄 ✖ 🟢 and	Market Capitalization - Greater Than$ 25 Mill.	2279
⊕ 🪄 ✖ 🔴 and	Price-Sales - Less Than 1	2279
⊕ 🪄 ✖ 🟢 and	Daily $ Amount, 20 Day Average - Greater Than$ 1000K	556
⊕ 📝 ✖ 🟢 and	Country("USA")	491
⊕ 🪄 ✖ 🟢 and	Is not Over-the-counter (OTC) - True	487
⊕ 🪄 ✖ 🔴 and	1 Year Price % Change - Best in the Market, highest 15%	487

Tiny Titans vs. All Stocks

📕 📝 Tiny Titans -AAII Seminar

| About | Notes | Main Settings | Rules | Hedge Rules | Results | **Backtest** | Advanced Backtest |

Price	Next Open ▾
Rank Tolerance	0.0 Max Pos % (0-100) 0.0
Slippage %	0.0 Carry Cost % 0.0
Long Weight %	100.0

Start Date - End Date ⏮ ◀ 1/2/1999 - 10/9/2013 ▶ ⏭ 🗓
1Y 5Y 10Y Max Get More Data

Rebalance Frequency 4 Weeks ▾

Save Log ☐

Run Backtest

Statistics

	Total Return	Annualized Return	Max Drawdown	Sharpe Ratio	Sortino Ratio	Standard Deviation	Correlation with Benchmark	R-Squared	Beta	Alpha
Screen	267.80%	9.22%	-67.59%	0.16	0.21	32.69%	0.88	0.78	0.98	2.78%
Russell2000	148.84%	6.37%	-59.37%	0.08	0.11	29.25%	-	-	-	-

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Tiny Titans vs. Random 25

Tiny Titans -AAII Seminar

| About | Notes | **Main Settings** | Rules | Hedge Rules | Results | Backtest | Advanced Backtest |

Universe	All Stocks	Benchmark	Russell2000
Method	Long	Max No. Stocks (0 for all)	25
Ranking	Quick Rank	NOTE: if no ranking is used, the order of results is random

| **Formula** | random | Ranking Method | Lower is Better |

Tiny Titans -AAII Seminar

| About | Notes | Main Settings | **Rules** | Hedge Rules | Results | Backtest | Advanced Backtest |

@ Show | ✎ Add Wizard Rule | ✎ Add Free Form | Clear | As Of 10/9/2013 | Run | Totals ↻

⊕ ✎ ✖ ● — Market Capitalization - Less Than$ 500 Mill.

⊕ ✎ ✖ ● and — Market Capitalization - Greater Than$ 25 Mill.

⊕ ✎ ✖ ● and — Price-Sales - Less Than 1

⊕ ✎ ✖ ● and — Daily $ Amount, 20 Day Average - Greater Than$ 1000K

⊕ ✎ ✖ ● and — Country("USA")

⊕ ✎ ✖ ● and — Is not Over-the-counter (OTC) - True

⊕ ✎ ✖ ● and — 1 Year Price % Change - Best in the Market, highest 15%

Tiny Titans vs. Random 25

	Total Return	Annualized Return	Max Drawdown	Sharpe Ratio	Sortino Ratio	Standard Deviation	Correl. To Benchmark	R-Squared	Beta	Alpha
hi	514.4%	13.1%	-59.3%	0.25	0.36	37.6%	0.80	0.64	1.02	6.5%
lo	-1.9%	-0.1%	-83.7%	-0.12	-0.16	35.4%	0.77	0.60	0.95	-6.2%
avg	256.3%	8.4%	-71.0%	0.12	0.17	36.3%	0.79	0.62	0.98	2.0%
med	286.6%	9.6%	-72.5%	0.16	0.22	36.4%	0.79	0.63	0.98	3.2%
SD	141.0%	3.3%	6.1%	0.09	0.13	0.5%	0.01	0.01	0.02	3.2%
+1SD	397.4%	11.7%	-64.9%	0.21	0.30	36.9%	0.80	0.63	1.00	5.2%
-1SD	115.3%	5.0%	-77.1%	0.03	0.04	35.8%	0.78	0.61	0.97	-1.2%
+2SD	538.4%	15.0%	-58.8%	0.30	0.43	37.4%	0.81	0.64	1.01	8.4%
-2SD	-25.7%	1.7%	-83.2%	-0.06	-0.09	35.3%	0.77	0.60	0.95	-4.5%
Tiny Titans	2365.0%	24.3%	-63.8%	0.58	0.79	34.6%	0.76	0.57	0.89	17.4%
%distribution	100%	100%	88%	100%	100%	0%	0%	0%	0%	100%
Russell2000	148.84%	6.37%	-59.37%	0.08	0.11	29.25%	-	-	-	-

Tiny Titans: Back-Test vs. Random 25

Annualized Return

Tiny Titans:
24.3% CAGR,
+4.7 SD, ~100%

.0013	.0214	.1359	.3413	.3413	.1359	.0214	.0013

-4	-3	-2	-1	0	1	2	3	4
		1.7%	5.0%	8.4%	11.7%	15%	18.4%	21.7%
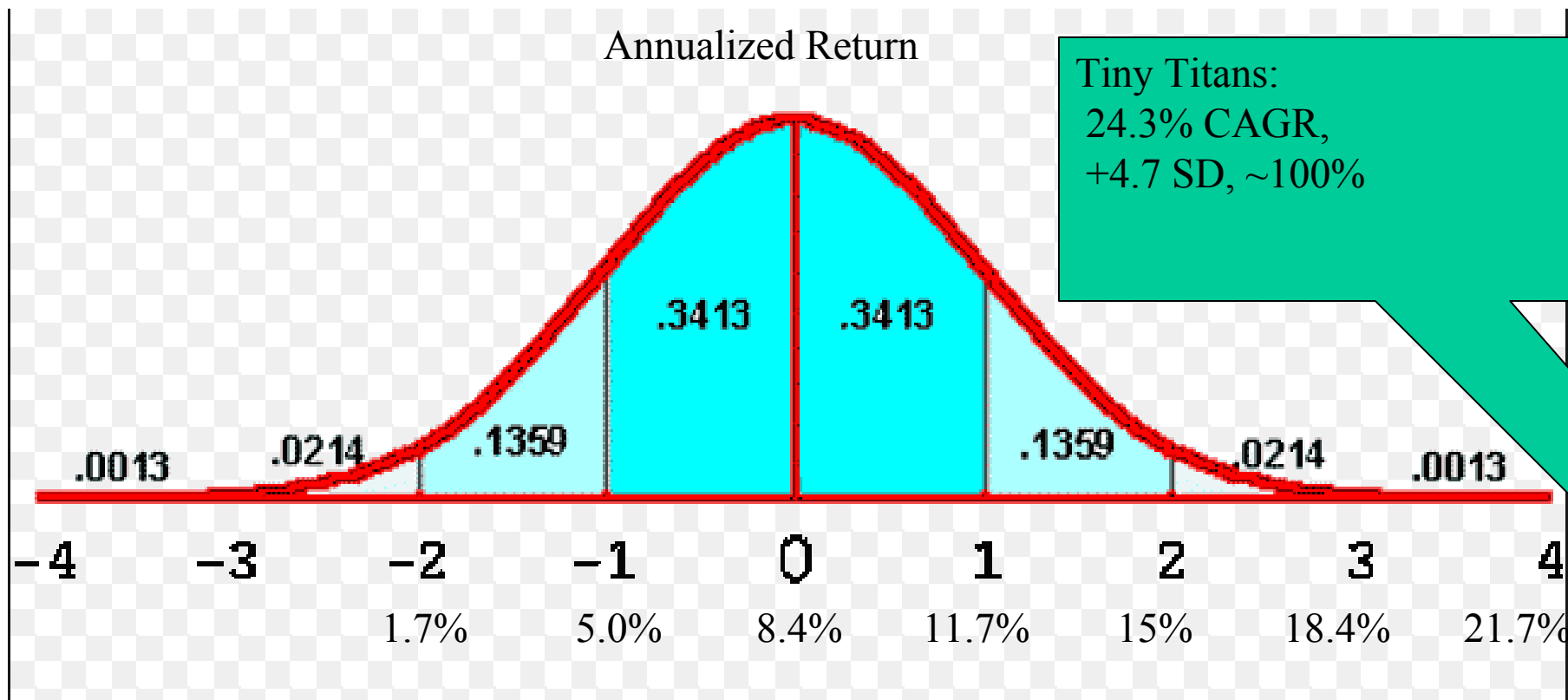
Tiny Titans Take-Aways

	Total Return	Annualized Return	Max Drawdown	Sharpe Ratio	Sortino Ratio	Standard Deviation	Correl. To Benchmark	R-Squared	Beta	Alpha
Russell2000	148.8%	6.4%	-59.4%	0.08	0.11	29.3%	-	-	-	-
All Stks Eql Wght	267.8%	9.2%	-67.6%	0.16	0.21	32.7%	0.88	0.78	0.98	2.78%
Tiny Titans	2365.0%	24.3%	-63.8%	0.58	0.79	34.6%	0.76	0.57	0.89	17.4%

- The Tiny Titans screen obliterates our two benchmarks
  - CAGR and Sharpe are excellent, lower MDD than Equal Weight – but high StdDev overall
- More practical screen than AAII's….
  - Liquidity check should make stocks "buyable" at reasonable spread/slippage costs
  - If the screen results in less than 15 stocks cash is added to the portfolio
  - Limited to 25 stocks (easier implementation)
  - MUST be run monthly - so has a high trading cost

Event Take-Aways!
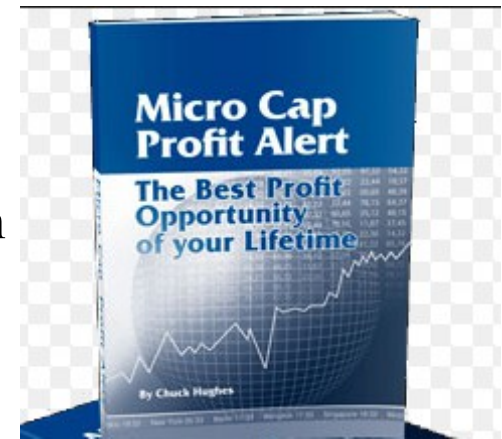
Extra "Stuff": Even More Screens!

- Sector Dogs
- Tiny Titans
- The Other Side of Value

PASS	Price / Earnings Ratio < 20
FAIL	Gearing < 50%
PASS	PEG Ratio < 1
PASS	Cash Flow / EPS > 1
FAIL	1 month Relative Strength > 0
PASS	Forecast EPS Growth > 15%

The Other Side of Value (OSV)

- The AAII Journal and the CI have written articles on this approach

- Based on my testing I used a subset ("Quality") of what's been recommended

- The screen: Top 25 stocks ranked by Gross Profit / Total Assets

- Not only is there *no momentum or TA* in this screen – *there's no pricing info at all!!*

AAII Stock Screens

Combining Quality Growth With Value and Momentum
By John Bajkowski

feature:
Screening for Quality Growth, Value and Momentum

Table 1. SI Pro Criteria for Novy-Marx Universe

Data Category	Conn	(	Field	Operator	Factor	Compare to (Field, Value, Industry)
Company Information			Standard and Poor stock	Equals		500
Company Information	And		Sector	Not Equal		Financial
Company Information	And		ADR/ADS Stock	Is False		
Balance Sheet - Quarterly	And		Equity (common) Q1	>		0

The OSV Screen

OSV-AAII

| About | Notes | **Main Settings** | Rules | Hedge Rules | Results | Backtest | Advanced Backtest |

Universe	S&P 500 Index		Benchmark	S&P 500
Method	Long		Max No. Stocks (0 for all)	25
Ranking	No Ranking		*NOTE: if no ranking is used, the order of results is random*	

OSV-AAII

| About | Notes | Main Settings | **Rules** | Hedge Rules | Results | Backtest | Advanced Backtest |

Show | Add Wizard Rule | Add Free Form | Clear | As Of 10/8/2013 | Run | Totals ⟳ 500

	Daily $ Amount, 20 Day Average – Greater Than$ 1000K	500
and	Exclude GICS Sector – Financials	419
and	Exclude Specialty Groups – ADRs	419
and	frank("GrossProfitTTM/ AstTotTTM",#Previous,#desc)>50	210
and	setvar(@GPtoTtlAsst, GrossProfitTTM/ AstTotTTM)	210

- Terms: (some, not all)

  - Setvar: Computes Gross Profits to Total Assets (@GPtoTtlAsst) so it can be seen in screen runs

The OSV: Current Stocks

OSV-AAII

| About | Notes | Main Settings | Rules | Hedge Rules | Results | Backtest | Advanced Backtest |

As Of: 10/8/2013   Run

Report: Screen Factors ▾ | Screen Factors | Pre-Defined | Saved | Create New ... |

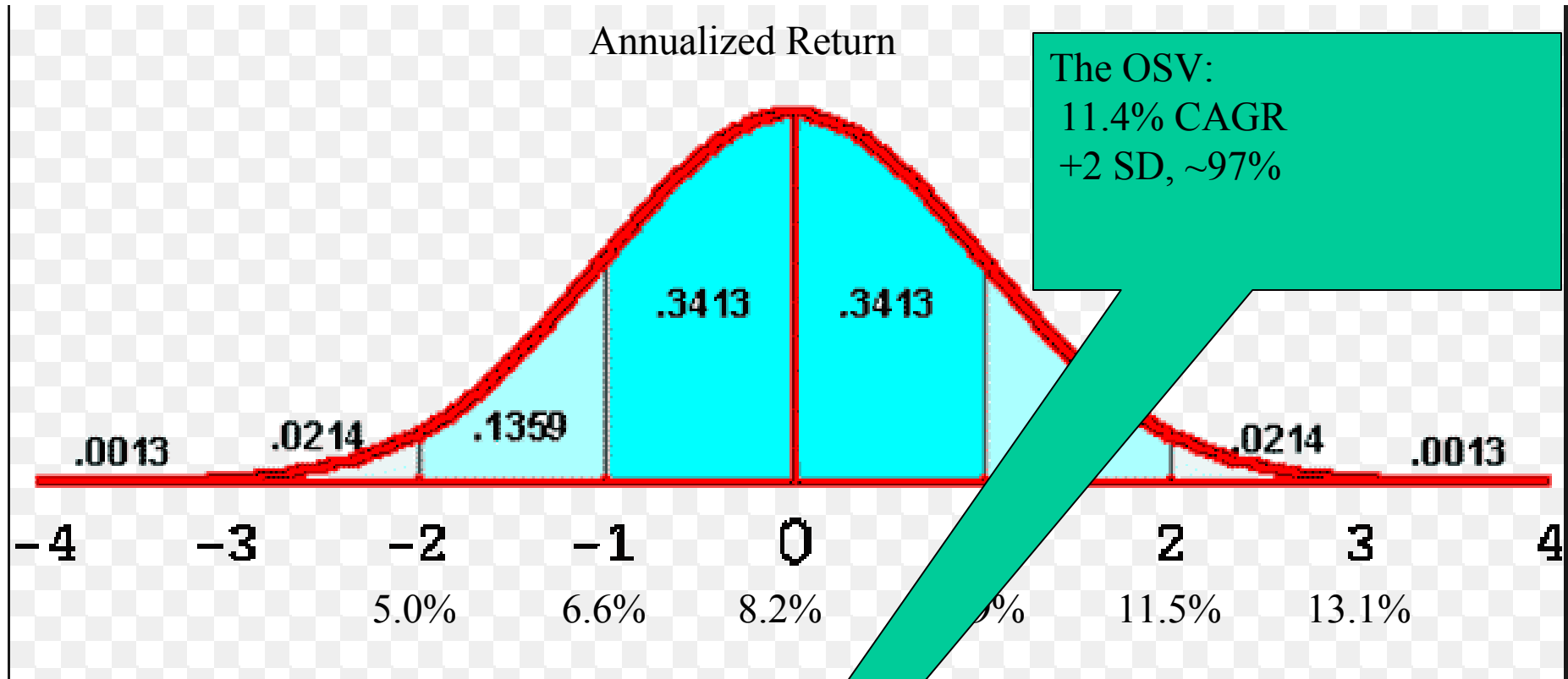| No	Ticker	Name	Last	MktCap	@GPtoTtlAsst	GrossProfit TTM	AstTotTTM
1	RHI[5d][1y]	Robert Half International Inc.	39.41	5,472.24	1.23	1,721.44	1,401.01
2	EL[5d][1y]	Estee Lauder Companies Inc. (The	69.29	26,884.10	1.2	8,500.80	7,104.50
3	COH[5d][1y]	Coach Inc.	54.39	15,332.65	1.17	3,865.94	3,308.71
4	DLTR[5d][1y]	Dollar Tree Inc	58.22	12,983.06	1.06	2,937.30	2,777.85
5	ANF[5d][1y]	Abercrombie & Fitch Co.	33.95	2,593.27	1.06	3,075.67	2,893.68
6	FDO[5d][1y]	Family Dollar Stores Inc.	70.63	8,122.38	0.95	3,486.01	3,670.72
7	FOSL[5d][1y]	Fossil Group Inc	118.71	6,842.21	0.95	1,782.50	1,884.75
8	WFM[5d][1y]	Whole Foods Market Inc	59.15	22,021.54	0.94	4,928.23	5,237.05
9	MNST[5d][1y]	Monster Beverage Corp	51.65	8,644.40	0.93	1,126.59	1,206.87
10	PETM[5d][1y]	PetSmart Inc	75.49	7,846.43	0.93	2,357.48	2,532.52
11	GPS[5d][1y]	Gap Inc. (The)	39.71	18,584.28	0.91	7,021.00	7,709.00
12	FAST[5d][1y]	Fastenal Co	50.45	14,976.59	0.9	1,728.97	1,918.57
13	TJX[5d][1y]	TJX Companies Inc (The)	55.36	39,595.46	0.85	8,194.33	9,612.59
14	GWW[5d][1y]	Grainger (W W) Inc.	261.13	18,147.75	0.84	4,208.63	5,010.55
15	KR[5d][1y]	Kroger Co. (The)	39.9	20,588.40	0.83	20,297.00	24,506.75
16	ROST[5d][1y]	Ross Stores Inc	72.41	15,690.02	0.81	3,045.97	3,767.44
17	LTD[5d][1y]	L Brands Inc	60.52	17,550.80	0.81	4,911.29	6,073.50
18	AVP[5d][1y]	Avon Products Inc.	19.97	8,660.13	0.8	5,840.40	7,323.38
19	MJN[5d][1y]	Mead Johnson Nutrition Co	75.09	15,198.21	0.79	2,561.80	3,239.48
20	CL[5d][1y]	Colgate-Palmolive Co	59.21	54,927.75	0.78	10,558.00	13,459.50
21	LO[5d][1y]	Lorillard Inc	45.14	16,927.50	0.77	2,680.00	3,476.00
22	RL[5d][1y]	Ralph Lauren Corp	164.35	14,873.68	0.76	4,167.70	5,472.73
23	BBY[5d][1y]	Best Buy Co. Inc.	37.01	12,619.19	0.75	11,582.00	15,489.50
24	AZO[5d][1y]	AutoZone Inc	419.83	14,397.23	0.74	4,968.19	6,683.84
25	SHW[5d][1y]	Sherwin-Williams Co (The)	181.3	18,616.43	0.74	4,541.38	6,108.68

The OSV: Back-Test

OSV-AA11

	Total Return	Annualized Return	Max Drawdown	Sharpe Ratio	Sortino Ratio	Standard Deviation	Correlation with Benchmark	R-Squared	Beta	Alpha
Screen	389.19%	11.36%	-44.23%	0.31	0.44	23.25%	0.74	0.55	0.70	8.33%
S&P 500	36.36%	2.12%	-57.00%	-0.08	-0.10	24.75%	-	-	-	-

The OSV vs. Random 25

Annualized Return

The OSV:
11.4% CAGR
+2 SD, ~97%

.0013   .0214   .1359   .3413   .3413   .0214   .0013

−4   −3   −2   −1   0   2   3   4

5.0%   6.6%   8.2%   %   11.5%   13.1%
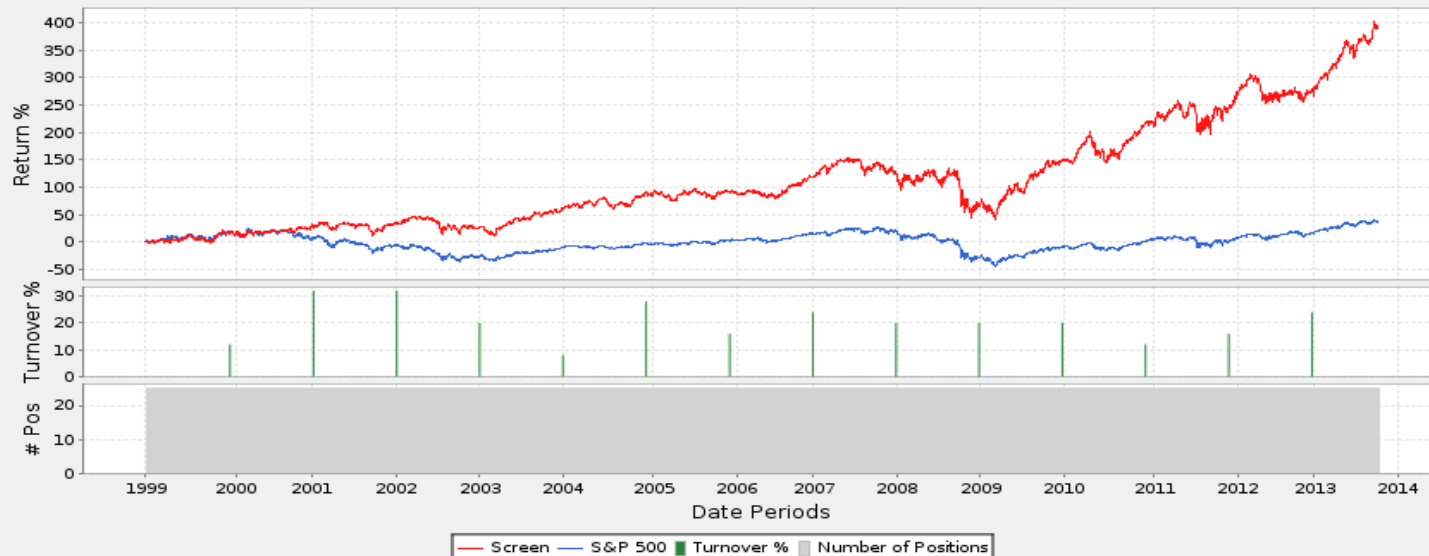
OSV: Comparing to the Right Universe??

- By excluding Financials and ADRs ~ 15% of the S&P500 stocks are excluded from being ranked
  - Range shown in back-test was 401-426 stocks available to be ranked
- So – should we compare to 25 stocks picked out of the S&P500 or this smaller universe?
- I took the coward's way out and am presenting both statistics and letting you decide which is more appropriate…
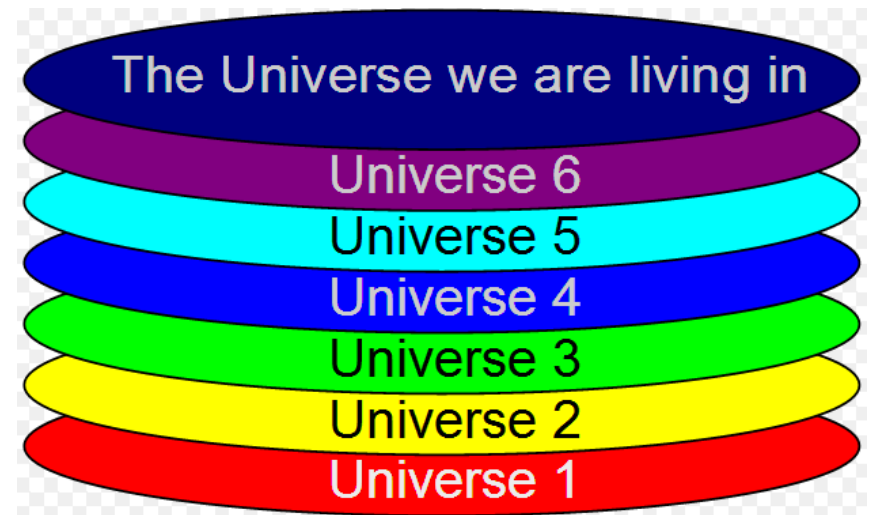
The OSV vs. (Alternate Universe) Random 25
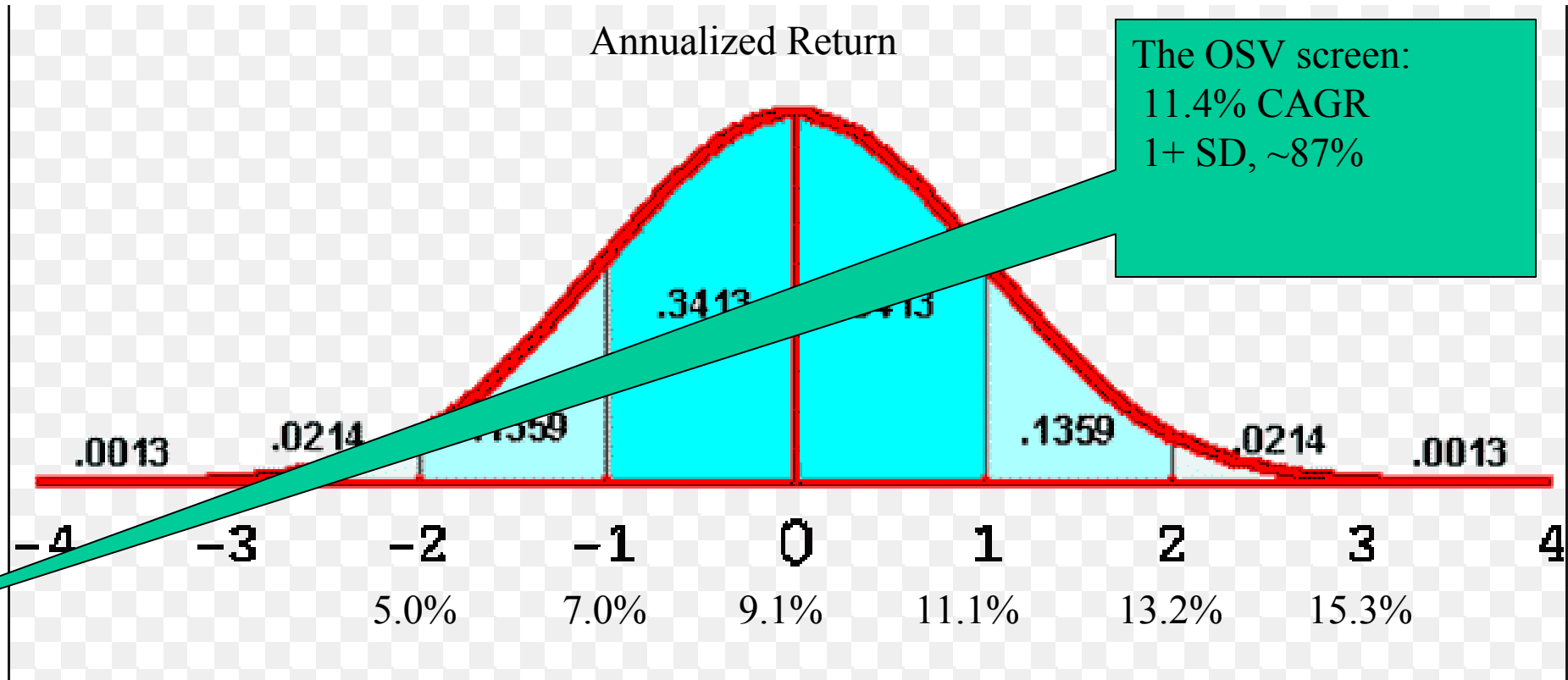
The OSV Take-Aways

	Total Return	Annualized Return	Max Drawdown	Sharpe Ratio	Sortino Ratio	Standard Deviation	Correl. To Benchmark	R-Squared	Beta	Alpha
S&P500 MktCap	34.7%	2.0%	-57.0%	-0.08	-0.11	24.8%	1.0	1.0	1.0	0%
S&P500 Eql Wght	239.3%	8.6%	-57.8%	0.19	0.25	23.9%	0.82	0.68	0.79	6.0%
S&P400+ Eql Wght	273.9%	9.4%	-52.8%	0.24	0.31	22.6%	0.82	0.67	0.75	6.5%
OSV	389.2%	11.4%	-44.2%	0.31	0.44	23.3%	0.74	0.55	0.70	8.3%

- The OSV screen does well compared to our two standard benchmarks, less well WRT the smaller (no Financials, ADRs) universe
  - Good CAGR and SD is lower than SYLD, not as good as Sector SYLD Dog
  - Note that OSV has slightly lower SD than SYLD – but larger than it's equal weight universe!

Event Take-Aways!

- Typically the OSV screen will over-weight some sectors -- e.g., Consumer, HealthCare and Tech are 60-80% of screen results

Reference Material

Web Sites, Tools, Data Sources, etc.

- General information
  - http://www.aaii.com   articles, spreadsheets, portfolios, etc.
  - http://finance.yahoo.com/?u   great general site

- Blogs
  - http://www.hussmanfunds.com blog, economic financial studies
  - http://www.ritholtz.com/blog/   Famous financier blog
  - http://www.johnmauldin.com/   Another famous financier

- Data, reference sites
  - http://www.investorwords.com/   investment dictionary
  - http://www.standardandpoors.com/home/en/us   S&P site
  - http://www.wikiposit.org/w   great free financial data
  - http://www.calculatedriskblog.com/   the best pure economic charting site
  - http://research.stlouisfed.org/fred2/series/STLFSI/downloaddata?cid=98 FRED – Fed data
  - http://www.pinnacledata.com/index.html   http://quotes-plus.com/joomla/; http://www.fasttrack.net/   data sources (fees)

- Brokerages: Proprietary information, tools, etc.
  - https://www.schwab.com/ https://us.etrade.com/e/t/home   https://www.fidelity.com

Web Sites, Tools, Data Sources, etc.

- Tools
  - http://www.assetcorrelation.com/   Generates correlations across instruments
  - http://stockcharts.com/ Draw complex charts
  - http://www.google.com/   Can find anything
  - http://www.keelix.com/backtester/   (free SIPro back tester)
  - http://sumgrowth.com/ momentum & timing site (fees after trial period)
  - https://www.vectorvest.com/vvlogin/login.aspx   back testing tool (fees)
  - http://www.portfolio123.com/   back testing toll (fees)
  - http://www.qmatix.com/XLQ.htm   (good Excel plug-in for Yahoo! Data, SIPro)
  - Excel, Visual Basic: do a lot of hacking with this tool
  - SIPro: best reasonably priced stock screener out there

- Economics, Finance sites
  - http://advisorperspectives.com/dshort/ mix of economic and market, very understandable, lots of fun charts
  - http://www.businesscycle.com/   ECRI – famous economic forecaster, downloadable info
  - http://www.angrybearblog.com/   economic policy (arguments)
  - http://gfs.eiu.com/about/   monthly economic forecast (free – I think)

- Quant sites (mostly blogs)
  - http://cssanalytics.wordpress.com/   Lots of algs, models, ideas
  - http://www.cxoadvisory.com/   Lots of algs, models, economic forecasts, etc
  - http://www.mebanefaber.com/   Faber' blog; some algs, lots of good reading references, ideas
  - http://marketsci.wordpress.com/ Lots of algs, models, ideas
  - http://boards.fool.com/mechanical-investing-100093.aspx board with lots of ideas, algs